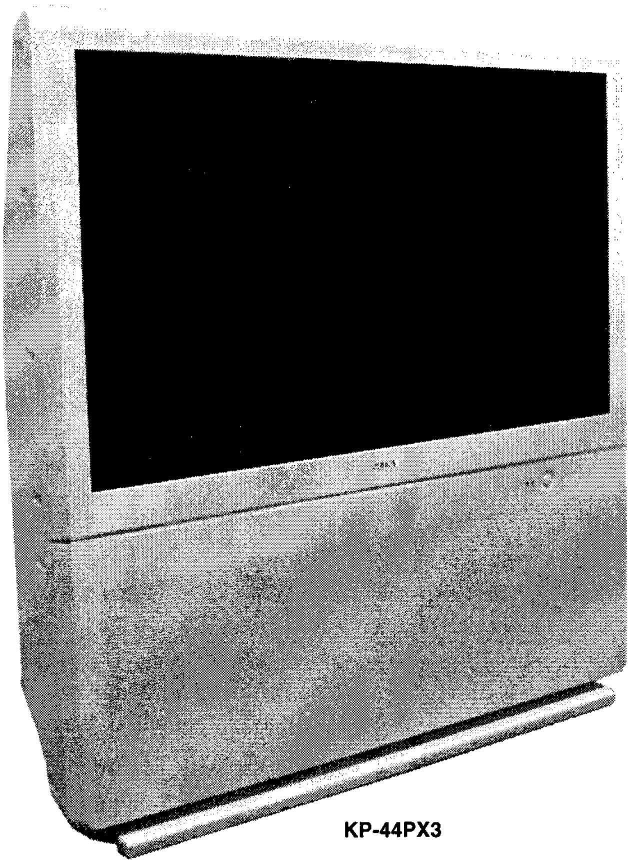
SONY-10466

Self Diagnosis Supported model

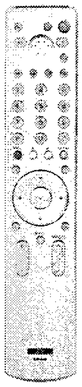
SERVICE MANUAL

AE-6Y CHASSIS

MODEL	COMMANDER	DEST	CHASSIS NO.	MODEL	COMMANDER	DEST	CHASSIS NO.
KP-44PX3	RM-945	AEP	SCC-Q85K-A	KP-44PX3U	RM-945	UK	SCC-Q84U-A



KP-44PX3



RM-945

PROJECTION TV

SONY®

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CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR THE CARBON PAINTED ON THE CRT, AFTER REMOVAL OF THE ANODE CAP.

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE WORK TO AVOID POSSIBLE SHOCK HAZARD DUE TO LIVE CHASSIS, THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE POWER LINE.

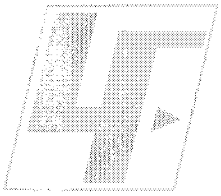
SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARKED ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

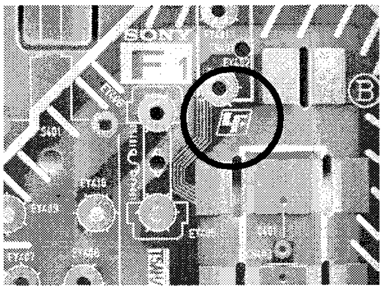
CAUTION

Lead Free Soldered Boards

The circuit boards listed below [Table 1] used in these models may have been processed using Lead Free Solder. The boards are identified by the LF logo located close to the board designation e.g. F1, H1 etc [see examples]. The servicing of these boards requires special precautions to be taken as outlined below.



example 1



example 2

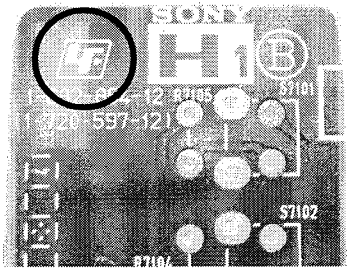


Table 1

Board	Function
A	Audio,Deflection,Tuner, J, B, N Interface
AD	PJED, Regi Correction
B	Backend,Scanrate,LVDS,A_Interface
CR, CG, CB	R,G,B Out
F1	AC In, Power Switch / LED & IR Receiver
H1	AV Input/HP Out
J	AV Scart, I/O Switching and Sockets
VMR, VMG, VMB	Velocity Modulation

It is strongly recommended to use Lead Free Solder material in order to guarantee optimal quality of new solder joints. Lead Free Solder is available under the following part numbers :

Partnumber	Diameter	Remarks
7-640-005-19	0.3mm	0.25Kg
7-640-005-20	0.4mm	0.50Kg
7-640-005-21	0.5mm	0.50Kg
7-640-005-22	0.6mm	0.25Kg
7-640-005-23	0.8mm	1.00Kg
7-640-005-24	1.0mm	1.00Kg
7-640-005-25	1.2mm	1.00Kg
7-640-005-26	1.6mm	1.00Kg

Due to the higher melting point of Lead Free Solder the soldering iron tip temperature needs to be set to 370 degrees centigrade. This requires soldering equipment capable of accurate temperature control coupled with a good heat recovery characteristics.

For more information on the use of Lead Free Solder, please refer to *http://www.sony-training.com*

ITEM MODEL	Television System	Stereo System	Channel Coverage	Color System
AEP	B/G/H, D/K, I, L	NICAM	VHF : E2-12 UHF : E21-69 CABLE TV : S1-S20 HYPER : S21-S41 D/K: R1-12, R21-69 L: F2-10 , B-Q , F21-F69 I: UHF B21-B69	PAL, SECAM NTSC3.58, NTSC4.43 (VIDEO IN)
UK	I	NICAM	I: UHF B21-B69	PAL, SECAM NTSC3.58, NTSC4.43 (VIDEO IN)

Projected Picture Size	Approx 112 cm (44 inches) (Approx 112 cm picture measured diagonally)
Input/Output Terminals [REAR]	
1: 21-pin Euro connector (CENELEC standard)	Inputs for Audio and Video signals. Inputs for RGB. Outputs of TV Video and Audio signals.
2: 21-pin Euro connector	Inputs for Audio and Video signals. Inputs for RGB. Outputs of TV Video and Audio signals. (Monitor Out)
3: 21-pin Euro connector	Inputs for Audio and Video signals. Input for S Video. Selectable Video and Audio output. SmartLink interface.
Phono Jacks	Output Connectors variable for Audio Signals
Input/Output Terminals [SIDE]	
Headphone jack	stereo mini jack
Audio inputs	phono jacks
Video inputs	phono jacks
S Video input	4 pin DIN

Sound output	
Right and Left speaker	2x20W (Music Power) 2x10W (RMS)
General Specifications	
Power Requirements	220 - 240V
Power Consumption/ Standby	170W/0.5W
Dimensions	Approx 1082 x 1170 x 528mm
Weight	Approx 55kg
Supplied Accessories	RM-945 Remote Commander (1) IEC designated R6 battery (2)
Other Features	100 Hz, Digital Plus, PAP, Teletext, Digital Comb Filter, Virtual Dolby, BBE, NexTView,ACI, Auto Format, SmartLink.
Remote Control System : Infrared Control	
Power requirements	3V dc 2 batteries IEC designation R6 (size AA)

Design and specifications are subject to change without notice.

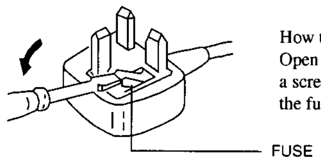
Model Name / Item	KP-44PX3	KP-44PX3U
Pal Comb	OFF	OFF
PAP	ON	ON
RGB Priority	ON	ON
Woofer Box	OFF	OFF
Scart 1	ON	ON
Scart 2	ON	ON
Scart 3	ON	ON
Front in (4)	ON	ON
Scart 4	OFF	OFF
Projector	ON	ON
Norm B/G	ON	OFF
Norm I	ON	ON
Norm D/K	ON	OFF
Norm AUS	OFF	OFF
Norm L	ON	OFF
Norm SAT	OFF	OFF
Norm M	OFF	OFF
Teletext	ON	ON
Nicam Stereo	ON	ON

WARNING (UK Models only)

The flexible mains lead is supplied connected to a **B.S. 1363** fused plug having a fuse of **5 AMP** rating. Should the fuse need to be replaced, use a **5AMP FUSE** approved by ASTA to **BS 1362**, ie one that carries the ◈ mark.

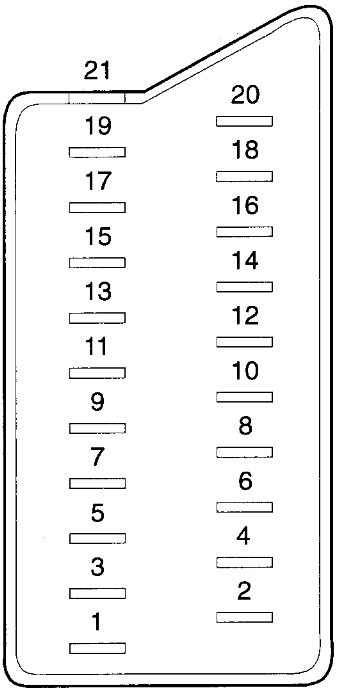
IF THE PLUG SUPPLIED WITH THIS APPLIANCE IS NOT SUITABLE FOR THE OUTLET SOCKETS IN YOUR HOME, IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED. THE PLUG SEVERED FROM THE MAINS LEAD MUST BE DESTROYED AS A PLUG WITH BARED WIRES IS DANGEROUS IF ENGAGED IN A LIVE SOCKET.

When an alternative type of plug is used, it should be fitted with a **5 AMP FUSE**, otherwise the circuit should be protected by a **5AMP FUSE** at the distribution board.



How to replace the fuse.
Open the fuse compartment with a screwdriver blade and replace the fuse.

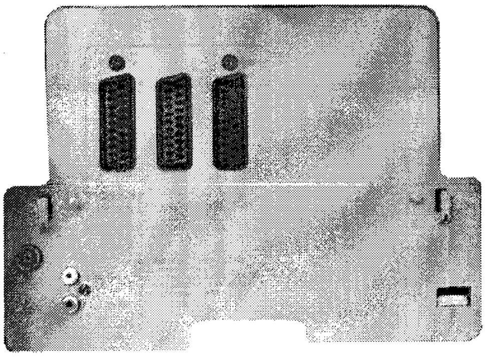
21 pin connector



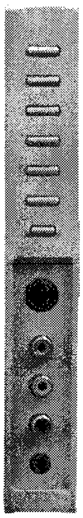
Pin No	1	2	3	Signal	Signal level
1	○	○	○	Audio output B (right)	Standard level : 0.5V rms Output impedence : Less than 1kohm*
2	○	○	○	Audio input B (right)	Standard level : 0.5V rms Output impedence : More than 10kohm*
3	○	○	○	Audio output A (left)	Standard level : 0.5V rms Output impedence : Less than 1kohm*
4	○	○	○	Ground (audio)	
5	○	○	○	Ground (blue)	
6	○	○	○	Audio input A (left)	Standard level : 0.5V rms Output impedence : More than 10kohm*
7	○	●	●	Blue input	0.7 +/- 3dB, 75 ohms positive
8	○	○	○	Function select (AV control)	High state (9.5-12V) : Part mode Low state (0-2V) : TV mode Input impedence : More than 10K ohms Input capacitance : Less than 2nF
9	○	○	○	Ground (green)	
10	○	○	○	Open	
11	○	●	●	Green	Green signal : 0.7 +/- 3dB, 75 ohms, positive
12	○	○	○	Open	
13	○	○	○	Ground (red)	
14	○	○	○	Ground (blanking)	
15	○	–	–	Red input	0.7 +/- 3dB, 75 ohms, positive
	–	○	○	(S signal Chroma input)	0.3 +/- 3dB, 75 ohms, positive
16	○	●	●	Blanking input (Ys signal)	High state (1-3V) Low state (0-0.4V) Input impedence : 75 ohms
17	○	○	○	Ground (video output)	
18	○	○	○	Ground (video input)	
19	○	○	○	Video output	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
20	○	–	–	Video input	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
	–	○	○	Video input Y (S signal)	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
21	○	○	○	Common ground (plug, shield)	

○ Connected ● Not Connected (open) * at 20Hz - 20kHz

Rear Connection Panel



Front Connection Panel



S-Video socket

S Video socket pin configuration		
Pin No	**Signal**	**Signal Level**
1	Ground	-
2	Ground	-
3	Y (S signal) input	1V+/-3dB 75ohm, positive Sync. 0.3V -3 +10dB
4	C (S signal) input	0.3V+/- 3dB 75ohm, positive Sync.

SECTION 1 SELF DIAGNOSIS FUNCTION

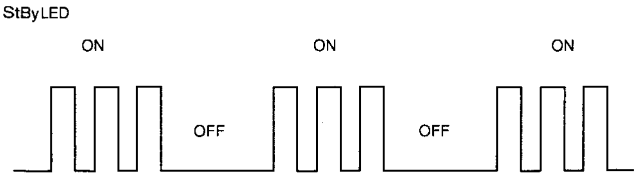
AE-6Y Self Diagnostic Software

The identification of errors within the AE-6Y chassis is triggered in one of two ways :- 1: Busy or 2: Device failure to respond to IIC. In the event of one of these situations arising the software will first try to release the bus if busy (Failure to do so will report with a continuous flashing LED) and then communicate with each device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the LED (Series of flashes which must be counted) See table 1, non fatal errors are reported using this method.
Each time the software detects an error it is stored within the NVM. See Table 2.

Table 1

Error Message	LED Code
No error	00
Reserved	01
OCP (Over Current Protection)	02
Over Voltage Protection	03
No Vertical Sync	04
IKR Error at power on	05
IIC bus clock and/or data lines low at power on	06
NVM no IIC bus acknowledge at power on	07
Horizontal Protection	08
Tuner no acknowledge at power on	09
Sound Processor Error	10
Reserved	11
Scanrate Error	12
DAC Error	13
Backend Error	14
Dynamic Convergence Error	15
PIP Error	16

Flash Timing Example : e.g. error number 3



How to enter into Table 2

1. Turn on the main power switch of the TV set.
2. Program Remote Commander for Operation in Service Mode. [See Page 24].
3. Press ‘AUX/VIDEO’ ‘AUX/VIDEO’ > ‘MENU’ on the Remote Commander.
4. Using the Remote Commander, Scroll to the ‘Error’ item using the down arrow key, then press the right arrow key.
5. The following table will be displayed indicating the error count.

Table 2

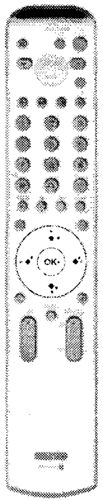
Error monitor		
WORKING TIME:	**(Hours:Minutes)**	82:33
Error counters:		
E02: OCP		0
E03: OVP		0
E04: NO V SYNC		0
E05: IKR		0
E06: IIC		0
E07: NVM		0
E08: H PROT		0
E09: TUNER		0
E10: SOUND		0
E11: 9 VOLTS		0
E12: SCANRATE		0
E13: 3DCOMB		0
E14: BACKEND		0
E15: DYNCON		0
E16: HIGH VOLTAGE		0
E17: AVSWITCH		0
E18: CHROMA DEC		0
E19: FRCA		0
E20: PJ ENG		0
E21: DAC		0
E24: SPEAKER PROT		0
E25: MEMORY STICK		0
Select: ▲ ▼	Previous Menu: ◀	

Note: To clear the error count data press ‘80’ on the Remote commander.

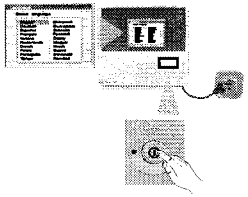
The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

Switching On the TV and Automatically Tuning

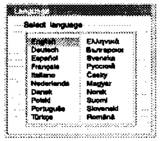
The first time you switch on your TV, a sequence of menu screens appear on the TV enabling you to: 1) choose the language of the menu screen 2) Choose the country in which you are going to operate the TV, 3) check how to connect optional equipment to your TV, 4) search and store all available channels (TV Broadcast) and 5) change the order in which the channels (TV Broadcast) appear on the screen.
However, if you need to change any of these settings at a later date, you can do that by selecting the appropriate option in the (Set Up menu) or by pressing the Auto Start Up Button on the TV set.



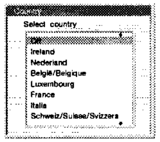
1 Connect the TV plug to the mains socket (220-240V AC, 50Hz) The first time that the TV set is connected, it is usually turned on. If the TV is off, press the ⏻ on/off button on the TV set to turn on the TV.
The first time you switch on the TV, a **Language** menu displays automatically on the TV screen.



2 Press the ↑, ↓, ← or → buttons on the remote control to select your language, then press the **OK** button to confirm your selection. From now on all the menus will appear in your chosen language.

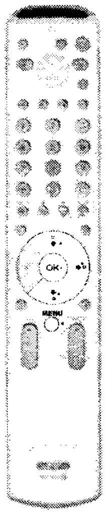

Select language
English
Deutsch
Español
Français
Italiano
Nederlands
Dansk
Polski
Português
Türkçe
Ελληνικά
Български
Svenska
Русский
Česky
Magyar
Norsk
Suomi
Slovenski
Română

3 The **Country** menu appears automatically. Press the ↓ or ↑ button to select the country in which you are using the TV. Press the **OK** button to confirm your selection.

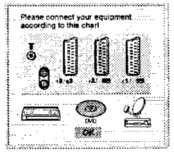

Select country
Off
Ireland
Nederland
België/Belgique
Luxembourg
France
Italia
Schweiz/Suisse/Svizzera

- If the country in which you want to use the TV set does not appear in the list, select "off" instead of a country.
- To avoid wrong teletext characters for cyrillic languages we recommend selecting Russia country if your own country does not appear in the list.

continued...



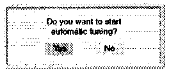
4 A diagram will appear showing you how to connect a wide range of equipment to your TV set. Follow the instructions and finally press the **OK** button to remove the picture and continue the automatic process.



Please connect your equipment according to this chart

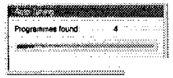
After the automatic tuning process has finished and the optional equipment has been connected at this stage, we recommend you follow the instructions explained on the section "Connection Guide" on page 17 to get the optimum settings related with the optional equipment.

5 The **Auto Tuning** menu appears on the screen. Press the **OK** button to select **Yes**.



Do you want to start automatic tuning?

6 The TV starts to automatically search and store all available broadcast channels for you.

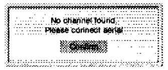


Programmes found: 4

This procedure could take some minutes. Please be patient and do not press any buttons, otherwise automatic tuning will not be completed.

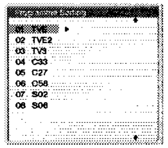
In some countries the TV Broadcaster installs the channels automatically (ACI system). In this case, the TV Broadcaster sends a menu in which you can select your city by pressing the ↓ or ↑ button and **OK** to store the channels.

If no channels were found during the auto tune process, a message appears automatically on the screen asking you to connect the aerial. Check the aerial connection (refer to page 8). Press the **OK** button to restart the auto tuning process.



No channel found. Please connect aerial

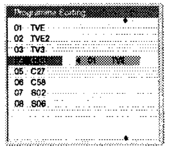
7 After all available channels are captured and stored, the **Programme Sorting** menu automatically appears on the screen enabling you to change the order in which the channels are stored.


Programme Sorting
01 TVE
02 TVE2
03 TV3
04 C33
05 C27
06 C58
07 S02
08 S06

a) If you wish to keep the broadcast channels in the tuned order, go to step 8.

b) If you wish to store the channels in a different order:

1. Press the ↓ or ↑ button to select the programme number with the channel (TV Broadcast) you wish to move. Press the → button.
2. Press the ↓ or ↑ button to select the new programme number position for your selected channel (TV Broadcast). Press the **OK** button to store.
3. Repeat steps b)1 and b)2 if you wish to change the order of the other channels.

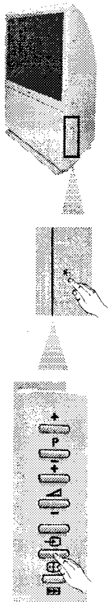

Programme Sorting
01 TVE
02 TVE2
03 TV3
04 C33
01 TVE
05 C27
06 C58
07 S02
08 S06

8 Press the **MENU** button to remove the menu from the screen

Your Projection TV is now ready for use

Adjusting Colour Registration (Convergence)

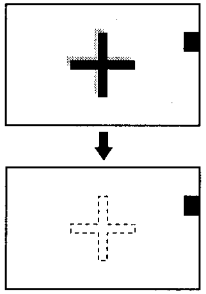
ⓘ Due to the earth's magnetism, the picture might become undefined and you could see different colours on the outlines of the images.
In that case, proceed as follows:



Auto converge the Red, Green, and Blue Lines

1 Press on the mark ⇤ on the right side of the projection TV to reveal control panel.

2 Press ⊕ button.

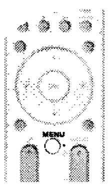


The Auto Convergence function works for about 10 seconds. When the white cross disappears from the screen, your projection TV is ready for use.

⚠ The Auto Convergence function does not work when:
- no signal is input.
- the input signal is weak.
- the screen is exposed to spotlights or direct sunlight.
- you watch the teletext broadcast.
- you watch NexTView.

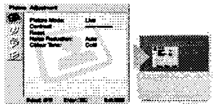
Introducing and Using the Menu System

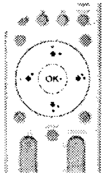
ⓘ Your Projection TV uses an On-Screen menu system to guide you through the operations. Use the following buttons on the Remote Control to operate the menu system:



1 To switch on the menu screens:

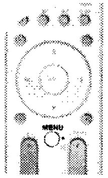
Press the **MENU** button to switch the first level menu on.





2 To navigate through the menus:

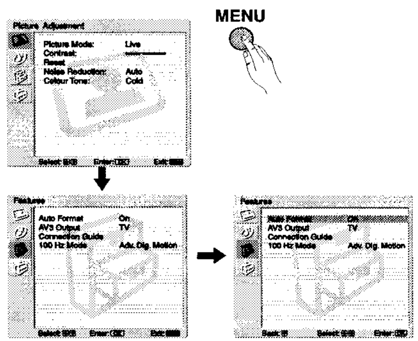
- To highlight and select the desired menu or option, press ⬇ or ⬆.
- To enter the selected menu or option, press **OK** or ➡.
- To return to the last menu or option, press **OK** or ⬅.
- To alter the settings of your selected option, press ⬇/⬆/⬅ or ➡.
- To confirm and store your selection, press **OK**.



3 To switch off the menu screens:

Press the **MENU** button to remove the menu from the screen.

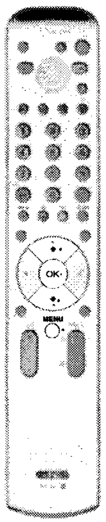
▤ The Features Menu



ⓘ The “Features” menu allows you to alter various settings of the TV.

To do this:

Press the **MENU** button and press ↓ twice to select ▤, then press **OK** to enter this menu. Next press ↓ or ↑ to select the desired option and press **OK**. Finally read below how to operate into each option.



AUTO FORMAT

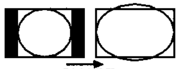
This option allows you to automatically change the aspect ratio of the screen.

To do this:

After selecting the option, press **OK**. Then press ↓ or ↑ to select **On** (if you wish the TV set to automatically switch the screen format according to the broadcast signal) or **Off** (if you wish to keep your preference). Finally press **OK** to store.

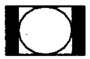
ⓘ Even if you have selected “On” or “Off”, you can always modify the format of the screen by pressing ⊞ repeatedly on the remote control to select one of the following formats:

SMART: Imitation of wide screen effect for 4:3 broadcast.



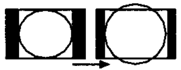
SMART

4/3: Conventional 4:3 picture size, full picture information.



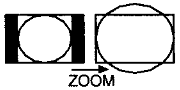
4/3

14/9: Compromise between 4:3 and 16:9 picture size.



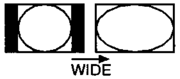
14/9

ZOOM: Widescreen format for letterbox movies.



ZOOM

WIDE: For 16:9 broadcast. Full picture information.



WIDE

ⓘ
- In “SMART”, “ZOOM” and “14/9” modes, parts of the top and bottom of the screen are cut off. Press ↓ or ↑ to adjust the position of the image on the screen (e.g. to read subtitles).
- According to the format of diffusion, black bands can always appear whatever the selected mode.

continued...

AV3 OUTPUT

This option allows you to select the source to be output from the Scart connector ⇨3/⇦ 3 so that you can record from this Scart any signal coming from the TV or from an external equipment connected to the Scart connector ⇨1/⇦ 1, ⇨2/⇦ 2 or right side connectors ⇦ 4 or ⇦4 and ⇦ 4.

ⓘ If your VCR supports SmartLink, this procedure is not necessary.

To do this:

Once you have entered into the "Features" menu as it is explained in the previous page and after selecting the option, press **OK**. Then press ↓ or ↑ to select the desired output signal:

TV	to output the aerial source.
AV1	to output sources connected to ⇨1/⇦ 1.
AV2	to output sources connected to ⇨2/⇦ 2.
AV4	to output sources connected to ⇦4 or ⇦ 4 and ⇦ 4.
AUTO	to output the signal that is being viewed on the TV.

⚠
- If you select “AUTO”, the output signal will always be the same one that is displayed on the screen.
- If you have connected a decoder to the Scart ⇨3/⇦ 3 or to a VCR connected to this Scart, please remember to change back the “AV3 Output” to “TV” for correct unscrambling.

CONNECTION GUIDE

Even you have already connected the external equipment to the TV set, it is important for you to follow the instructions of this menu. If you proceed in this way, you will get the optimum picture settings related with the optional equipment.

To do this:

1 Once you have entered the "Features" menu as it is explained in the previous page and after selecting the option, press **OK**. Next press ↓ or ↑ to chose the equipment you want to connect among the available: **SAT** (satellite), **Decoder, DVD, GAME, VIDEO** or **DVD rec**. (DVD recorder). Next press → to select the equipment chosen (equipment selected also can be deleted by pressing ←). Once you have selected all the equipment to be connected, press ↓ or ↑ to select "**Confirm**" and press **OK**.

2 A new menu will appear showing you on which Scart connector of the rear of the TV should be connected each equipment. Please connect each equipment according to this information to get the optimum picture setting of the optional equipment.

⚠ *We strongly recommend you to follow our connection proposals, but in case you do not agree press ← or → to select "No" and next press the OK button. A new menu appears on the screen in which you can assign the connections according to your preferences.*

3 Once you have connected the optional equipment, press ← or → to select "**OK**" and finally press the **OK** button of the remote control.

RGB CENTRING

⚠ This option is only available if an RGB source has been connected to the TV.

This option allows you to readjust the horizontal position of the picture in case you need to do it when connecting an RGB source.

To do this:

Once you have entered the "Features" menu as it is explained in the previous page and while watching an RGB source select the “RGB Centring” option and press **OK**. Then press ↓ or ↑ to adjust the centre of the picture between -5 and +5. Finally press **OK** to confirm and store.

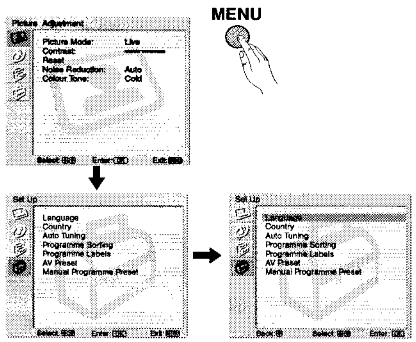
100 Hz MODE

This option allows you to select the picture quality of moving images depending on your own preference.

To do this:

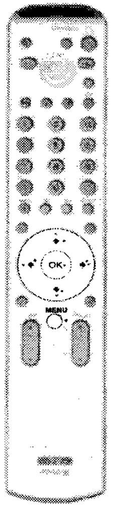
Once you have entered the "Features" menu as it is explained in the previous page, select this option and press **OK**. This option is pre-set to **Adv. Dig. Motion** (Advanced 100Hz Digital Motion). Although this is the most ideal setting to produce smooth images and to reduce any blurring that may appear with some moving images, depending on your own preference, this option can be altered. Press ↓ or ↑ to select **Digital Plus** (Advanced 100Hz Digital Plus) and finally press **OK** to store your selection.

The Set Up Menu



ⓘ The "Set Up" menu allows you to alter various options on this TV.

To do this:
Press the **MENU** button and press ↓ three times to select , then press **OK** to enter this menu. Next press ↓ or ↑ to select the desired option and press **OK**. Finally read below how to operate into each option.



LANGUAGE
This option allows you to select the language that menus are displayed in.

To do this:
After selecting the option, press **OK** and then proceed in the same way as in step 2 of the section "Switching On the TV and Automatically Tuning" on page 9.

COUNTRY
This option allows you to select the country in which you wish to operate the TV set.

To do this:
After selecting the option, press **OK** and then proceed in the same way as in step 3 of the section "Switching On the TV and Automatically Tuning" on page 9.

AUTO TUNING
This option allows you to automatically search for and store all available TV channels.

To do this:
After selecting the option, press **OK** and then proceed in the same way as in the steps 5 and 6 of the section "Switching On the TV and Automatically Tuning" on page 10.

PROGRAMME SORTING
This option allows you to change the order in which the channels (TV Broadcast) appear on the screen.

To do this:
After selecting the option, press **OK** and then proceed in the same way as in the step 7 of the section "Switching On the TV and Automatically Tuning" on page 10.

continued...

PROGRAMME LABELS
This option allows you to name a channel using up to five characters (letters or numbers).

To do this:

1 Once you have entered the "Set Up" menu as it is explained in the previous page and after selecting the option, press **OK**, then press ↓ or ↑ to select the programme number with the channel you wish to name. Next press **OK**.

2 With the first element of the **Label** column highlighted, press **OK** and ↓, ↑, ← or → to select the letter, next press **OK**.
When you have finished, press ↓, ↑, ← or → to select the word "**End**" on the screen and finally press **OK** to turn off the menu from the screen.

ⓘ
- To correct the letter, select "⇦" on the screen to go back and press **OK**.
- For a blank, select "▯" on the screen and press **OK**.

AV PRESET
This option allows you to:

a) Designate a name to the external equipment you have connected to the input sockets of the TV set.

To do this:

1 Once you have entered the "Set Up" menu as it is explained in the previous page and after selecting the option, press **OK**, then press ↓ or ↑ to select the input source you wish to name: **AV1, AV2** or **AV3** for the rear Scarts and **AV4** for right side connectors. Next press **OK** twice.

2 A label automatically appears in the label column:

a) If you want to use one of the predefined labels, press ↓ or ↑ to select the desired label and finally press **OK**.

ⓘ The total predefined labels are: **VIDEO, DVD, CABLE, GAME, CAM** (camcorder) or **SAT** (satellite).

b) If you want to set a different label, select **Edit** and press **OK**. Then, with the first element highlighted, press ↓, ↑, ← or → to select the letter, next press **OK**. When you have finished, press ↓, ↑, ← or → to select the word "**End**" on the screen and finally press **OK** to turn off the menu from the screen.

ⓘ
- To correct the letter, select "⇦" on the screen to go back and press **OK**.
- For a blank, select "▯" on the screen and press **OK**.

b) Change the input sound level of the optional equipment connected.

To do this:
Once you have entered the "Set Up" menu as it is explained in the previous page and after selecting the option press **OK**, then press ↓ or ↑ to select the input source you want to alter the input sound level: **AV1, AV2** or **AV3** for the rear Scarts and **AV4** for right side connectors. Next press twice → to highlight the **Sound Offset** column. Finally press **OK** and ↓ or ↑ to alter the input sound level between -9 and +9.

continued...

MANUAL PROGRAMME PRESET

This option allows you to:

a) Preset channels or the VCR channel one by one to the programme order of your choice.

To do this:

1 Once you have entered the "Set Up"menu as it is explained on page 18 and after selecting the "Manual Programme Preset" option, press **OK.** Next with **Programme** option highlighted press **OK**. Press ↓ or ↑ to select which programme number you want to preset the channel on (for VCR, select programme number "0"). Then press ←.

2 The following option is only available depending on the country you have selected in the "Country" menu.
After selecting the **System** option, press **OK**. Then press ↓ or ↑ to select the TV Broadcast system (**B/G** for western European countries, **D/K** for eastern European countries, **L** for France or **I** for United Kingdom). Then press ←.

3 After selecting the **Channel Number** option, press **OK**. Next press ↓ or ↑ to select the channel tuning ("C" for terrestrial channels or "S" for cable channels). Then press the number buttons to enter directly the channel number of the TV Broadcast or the channel of the VCR signal. If you do not know the channel number, press → and ↓ or ↑ to search for it. When you have tuned the desired channel, press **OK** twice to store.

Repeat all the above steps to tune and store more channels.

b) Label a channel using up to five characters.

To do this:
Once you have entered the "Set Up"menu as it is explained on page 18 and after selecting the "Manual Programme Preset" option, press **OK**. Next with the **Programme** option, highlighted press the **PROG +/-** button to select the programme number with the channel you wish to name. When the programme you want to name appears on the screen, select the **Label** option and press **OK**. Then, with the first element highlighted, press ↓, ↑, ← or → to select the letter, next press **OK**. When you have finished, press ↓, ↑, ← or → to select the word "**End**" on the screen and finally press **OK** to turn off the menu from the screen.

- To correct the letter, select "⟵" on the screen to go back and press **OK**.
- For a blank, select "▯" on the screen and press **OK**.

c) Fine tune the broadcast reception. Normally the automatic fine tuning (AFT) will give the best possible picture, however you can manually fine tune the TV to obtain a better picture reception in case the picture is distorted.

To do this:
While watching the channel (TV Broadcast) you wish to fine tune, and once you have entered the "Set Up" menu as it is explained on page 18 and after selecting the "Manual Programme" option, press **OK**. Then select the **AFT** option and press →. Next press ↓ or ↑ to adjust the fine tuning between -15 and +15. Finally press **OK** twice to store.

d) Skip any unwanted programme numbers when they are selected with the PROG +/- buttons.

To do this:
Once you have entered the "Set Up" menu as it is explained on page 18 and after selecting the "Manual Programme Preset" option, press **OK.** Next with the **Programme** option highlighted, press the **PROG +/-** button to select the programme number you want to skip. When the programme you want to skip appears on the screen, select the **Skip** option and press →. Next press ↓ or ↑ to select **On**. Finally press **OK** twice to confirm and store.

To cancel this function afterwards, select "Off" instead of "On" in the step above.

e) View and record scrambled channels (e.g. from a pay TV decoder) when using a decoder connected to Scart ⇨3/⇦3 directly or through a VCR.

This option is only available depending on the country you have selected in the "Country" menu.

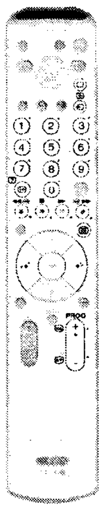
To do this:
Once you have entered the "Set Up" menu as it is explained on page 18 and after selecting the "Manual Programme Preset" option, press **OK**. Next select the **Decoder** option and press →. Next press ↓ or ↑ to select **On**. Finally press **OK** twice to confirm and store.

To cancel this function afterwards, select "Off" instead of "On" in the step above.

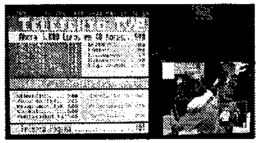
Teletext

Teletext is an information service transmitted by most TV stations. The index page of the teletext service (usually page 100) gives you information on how to use the service. To operate teletext, use the remote control buttons as indicated below.

- Teletext errors may occur if you use a channel (TV Broadcast) with a weak signal.
- After 5 minutes viewing the same teletext page and without any button being pressed, the brightness level of the text automatically decreases notoriously to avoid any damage to the picture tube. Press any button of the remote control to reset the brightness level.



To switch on Teletext :



1 Select the broadcast channel which carries the teletext service you wish to view.

2 Press the ▤ button one time to enter Picture and Text (P&T) mode. The screen is divided into two with the Text display on the left and the TV channel in the right corner.

3 If you wish to view the Text in full screen mode, press the ▤ button a second time.

To select a Teletext page:

Input 3 digits for the page number, using the numbered buttons.

- *If you make a mistake, retype the correct page number.*
- *If the counter on the screen continues searching, it is because the page is not available. If this is the case, input another page number.*

To access the next or preceding page:

Press PROG + (▲) or PROG - (▼).

To freeze a teletext page:

Press ⊖/⊕. Press it again to cancel the freeze.

To reveal concealed information (e.g: answer to a quiz):

Press ⊕/?. Press it again to conceal the information.

To select a sub page:

A teletext page may consist of several sub pages. In this case, one or more arrows appear next to the page number and an information box is displayed at the bottom of the screen showing the number of sub pages contained on this page. As soon as sub pages are available, they start to automatically run. If you want to stop the show and select your desired sub page, press repeatedly ← or →.

To Switch Off Teletext:

Press ▢.

Fastext

Fastext service lets you access Teletext pages with one button push.
When you are in Teletext mode and Fastext is broadcast, a colour coded menu appears at the bottom of the teletext page. Press the appropriate coloured button (red, green, yellow or blue) to access the page corresponding to your menu choice.

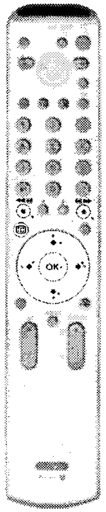
NexTView*

*(depending on availability of service).

ⓘ NexTView is an on-screen electronic programme guide, providing you with programme information for different broadcasters.
When looking for information you can search by theme (sports, art, etc...) or date.

⚠ If wrong characters appear when viewing NexTView, use the menu system to enter the "Language" menu (see page 18) and select the same language as the NexTView is broadcasted.

Displaying NexTView



1 Select a broadcast channel providing a NexTView service. In this case the indication "NexTView" is displayed as soon as data is available.

2 To see NexTView service you have two different types of NexTView interface. These depend on the % of available data:

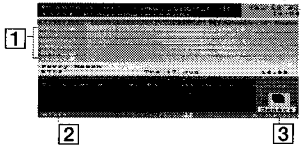
a) "Programme List" interface:
Whilst you are watching TV, and after the indication "NexTView" (coloured white) is displayed on the screen, press the ▣ button on the remote control to watch the "Programme List" interface (see fig. 1).

b) "Overview" interface:
Whilst you are watching TV, and after more than 50% of NexTView data is available (100% data may not be available depending on the area) the indication "NexTView" (coloured black) is displayed on the screen. Press the ▣ button on the remote control to watch the "Overview" interface (see fig. 2).

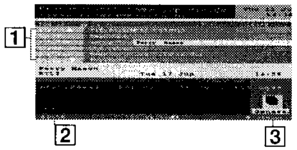
3 To navigate through NexTView:
- Press ← or → to move left or right.
- Press ↓ or ↑ to move downwards or upwards.
- Press **OK** to confirm a selection.
- If you have selected a programme, press **OK** to get more information on the selected programme.

4 To switch NexTView off, press the ▣ button on the remote control.

"Programme List" interface (fig. 1):



"Overview" interface (fig. 2):



1 **Programmme list**

2 **Date:**
Press the **red button** of the remote control to display the date screen, you can select the desired date by pressing ↓ or ↑. Next press **OK** to confirm.

3 **Categories:**
Press the **blue button** of the remote to display the icons (see below the Icon's key) for different themes. Next press ↓ or ↑ to select the desired icon and finally press the **OK** button to confirm.

Icons' key:

General:
All the programme information is listed by time and broadcast channels order.

News

Movie

Sports

Show

Children

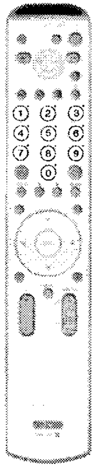
Arts

Music

Remote Control Configuration for VCR or DVD

ⓘ In it's default condition this remote control will operate the basic functions of this Sony TV, Sony DVDs and most Sony VCRs. To control VCRs and DVDs of other manufacturers (and some Sony VCR models), the remote control needs to be configured.

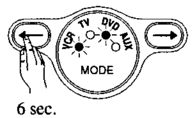
fig. 2



To do this:

⚠
- Before you start, look up the 3 digit code for your brand of DVD or VCR from the list below. On those brands that have more than one code, enter the first code number.
- Sony will endeavour to update the software according to market changes. Therefore, please refer to code table included with the remote control for latest code set.
- A small label is added inside the battery door to allow you to record your brand codes.

fig. 1

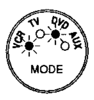


6 sec.

1 Press and hold the ← button of the remote control for approximately 6 seconds until the green DVD and VCR light of the Media Selector starts flashing (see fig. 1).

2 While the VCR and DVD lights are flashing, enter all three digits of the code for your brand of VCR or DVD (see the list below) using the **number buttons** on the remote control (see fig. 2).

fig. 3



ⓘ If your selected code is entered correctly, the green light VCR or DVD (according to your selection) will be lit momentarily (see fig. 3), otherwise repeat all the above steps.

3 Turn on your VCR or DVD and check that the main functions work (playback, stop, rewind, fast forward and channel selection for both VCR and DVDs as well as Menu and cursors buttons only for DVDs).

⚠
- If your device is not working or some of the functions do not work please check that you entered the correct code set or try the next code listed against the brand.
- Not all brands are covered and not all models of every brand may be covered.

4 Always remember to press the ← or → button until the green light iluminates according to the equipment you want to operate with this remote control: **VCR, TV** or **DVD**. Refer to pages 28 - 29 on how to operate the AUX mode.

VCR Brand List

Brand	Code
SONY (VHS)	301, 302, 303, 308, 309,362
SONY (BETA)	303, 307, 310
SONY (DV)	304, 305, 306
AIWA	325, 331, 351
AKAI	326, 329, 330
DAEWOO	342, 343
GRUNDIG	358, 355, 360, 361, 320, 351, 366
HITACHI	327, 333, 334
JVC	314, 315, 322, 344, 352, 353, 354, 348, 349
LG	332, 338
LOEWE	358, 355, 360, 361, 320, 351
MATSUI	356, 357
ORION	328
PANASONIC	321, 323
PHILIPS	311, 312, 313, 316, 317, 318, 358, 359, 363, 364
SAMSUNG	339, 340, 341, 345
SANYO	335, 336
SHARP	324
THOMSON	319, 350, 365
TOSHIBA	337

DVD Brand List

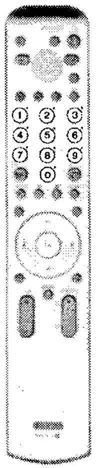
Brand	Code
SONY	001, 029, 030, 036, 037, 038, 039, 040, 041, 042, 043, 044, 053, 054, 055
AIWA	021
AKAI	032
DENON	018, 027, 020, 002
GRUNDIG	009, 028, 023, 024, 016, 003
HITACHI	025, 026, 015, 004, 035
JVC	006, 017
KENWOOD	008
LG	015, 014, 034
LOEWE	009, 028, 023, 024, 016, 003
MATSUI	013, 016
ONKYO	022, 033
PANASONIC	018, 027, 020, 002, 045, 046, 047
PHILIPS	009, 028, 023, 024, 016, 003, 031
PIONEER	004, 050, 051, 052
SAMSUNG	011, 014
SANYO	007
SHARP	019, 027
THOMSON	012
TOSHIBA	003, 048, 049
YAMAHA	018, 027, 020, 002

Remote Control Configuration for AV devices

ⓘ To eliminate the amount of remote controls you need, this remote control will operate the main functions of some Sony's DAV, Sony's AV receivers as well as Sony's STB (see the table on the following page with the available devices).

To operate these devices with this remote needs to be configured.

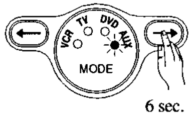
fig. 2



To do this:

⚠
- Before you start, look up the 3digit code of your device from the list on the following page.
- A small label is added inside the battery door to allow you to record your brand codes.
- Sony will endeavour to update the software according to market changes. Therefore, please refer to code table included with the remote control for latest code set.

fig. 1



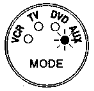
6 sec.

1 Press and hold the ⟶ button of the remote control for approximately 6 seconds until the green AUX light of the Media Selector starts flashing (see fig. 1).

2 While the AUX light is flashing, enter the three digits of the code for your device (see the list on the following page) using the **number buttons** on the remote control.

ⓘ If your selected code is entered correctly, the green AUX light will be lit momentarily (see fig. 3), otherwise repeat all the above steps.

fig. 3



3 Turn on your device and check that the main functions work (see the table on the following page to check the main functions according each equipment).

⚠
- If your device is not working or some of the functions do not work, please check that you entered the correct code set.

4 Always remember to press ⟵ or ⟶ button until the green light illuminates according to the equipment you want to operate with this remote control: **TV** or **AUX**. Refer to page 27 on how to operate the VCR and DVD modes.

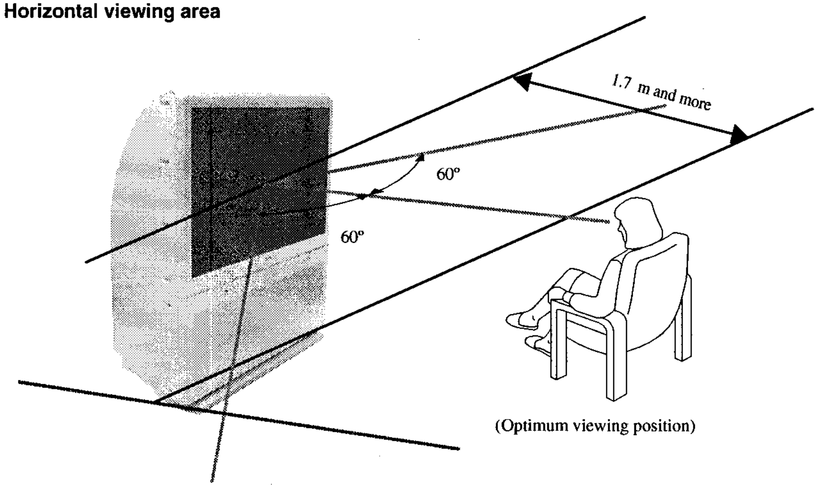
continued...

AVAILABLE SONY's AV MODELS	CODE	MAIN FUNCTIONS AVAILABLE
DIGITAL TERRESTRIAL RECEIVER MODEL:		Power On/Off, Channel selection, Volume control, Teletext, Fastext, EPG (Electronic Programme Guide), Menu and cursors.
VTX-D800	503	
DAV MODELS:		Power On/Off, Play, Fast Forward, Rewind, Stop, Volume control, Menu, Cursors.
DAV-DS1000	501	
DAV-SC8	502	
DAV-SC6	502	
DAV-SC5	502	
DAC-SA30	502	
CINEMA KITS MODELS:		Power On/Off, Volume control.
HTP-1900	504	
HTP-1500	504	
HTP-1100	504	
HTP-3100	505	
HT-K250	504	
HT-DDW750	505	
HT-SL40	504	
HT-SL55	504	
AV RECEIVERS MODELS:		Power On/Off, Volume control.
TV-DA9000ES	507	
STR-DA5000ES	507	
STR-DA3000ES	506	
STR-DB2000	505	
STR-DB790	508	
STR-DE695	508	
STR-DE595	507	
STV-DE495	507	

Optimum Viewing Area

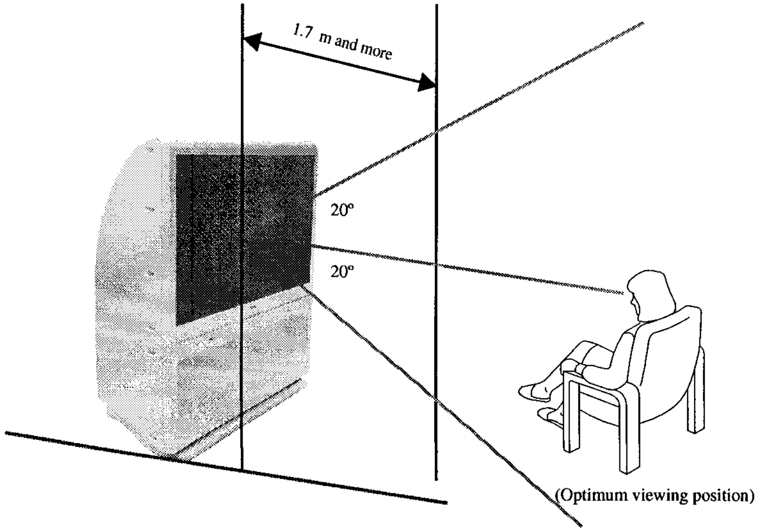
ⓘ For the best picture quality, try to position the TV set so that you can view the screen from within the areas shown below.

Horizontal viewing area



(Optimum viewing position)

Vertical viewing area



(Optimum viewing position)

Technical Specifications

TV system:
Depending on your country selection:
B/G/H, D/K, L, I

Colour system:
PAL
SECAM, NTSC 3.58, 4.43 (only Video In)

Channel Coverage:

VHF:	E2-E12
UHF:	E21-E69
CATV:	S1-S20
HYPER:	S21-S41
D/K:	R1-R12, R21-R69
L:	F2-F10, B-Q, F21-F69
I:	UHF B21-B69

Projection picture size:
44" (approx. 112 cm. measured diagonally)

Rear Terminals

- **AV1**
  ⊖→1/→⊟1
  21-pin scart connector (CENELEC standard) including audio/video input, RGB input, TV audio/video output.
- **AV2**
  ⊖→2/→⊟2
  21-pin Scart connector (CENELEC standard) including audio / video input, RGB input, monitor audio/video output.
- **AV3**
  ⊖→3/→⊟3
  21-pin Scart connector (CENELEC standard) including audio / video input, S video input, selectable audio / video output and SmartLink interface.
- ⊖→ audio outputs (Left/Right) - phono jacks

Side Terminals

- →⊟4 S Video input – 4 pin DIN
- →⊟4 video input – phono jack
- →⊖ 4 audio input – phono jacks
- ∩ headphones jack

Sound Output:
2 x 20 W (music power)
2 x 10 W (RMS)

Power Consumption:
170 W

Standby Power Consumption:
0.5 W

Dimensions (w x h x d):
approx. 1082 x 1170 x 528 mm.

Weight:
approx. 55 Kg.

Accessories supplied:
- 1 Remote Control (RM-945)
- 2 Batteries (IEC designated, AA size)

Other features:
- Digital Comb Filter (High resolution).
- 100 Hz picture, Digital Plus.
- Teletext, Fastext, TOPtext.
- NexTView.
- SmartLink.
- TV system autodetection.
- Dolby Virtual.
- BBE Digital.
- NICAM.
- PAP.
- ACI (Auto Channel Installation).
- Auto Format.

Design and specifications are subject to change without notice.

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Troubleshooting

ⓘ Here are some simple solutions to problems which may affect the picture and sound.

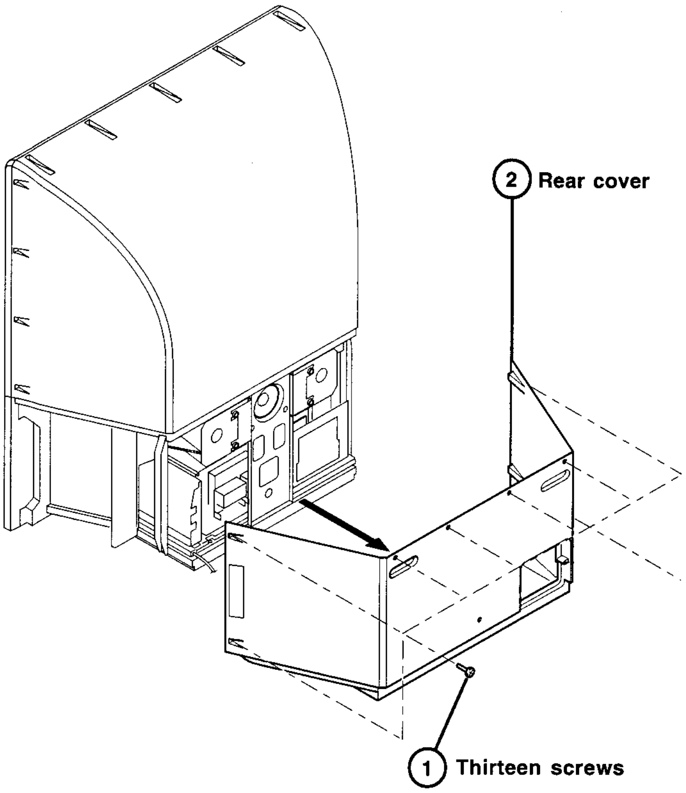
Problem	Solution
No picture (screen is dark) and no sound.	• Check the aerial connection. • Plug the TV in and press the ⏻ button on the front of the TV. • If the standby indicator ⏻ is on, press TV I/⏻ button on the remote control.
Poor or no picture (screen is dark), but good sound.	• Using the menu system, select the "Picture Adjustment" menu and select "Reset" to return to the factory settings (see page 13).
No picture or no menu information from equipment connected to the Scart connector.	• Check that the optional equipment is on and press the ⊖ button repeatedly on the remote control until the correct input symbol is displayed on the screen (see page 25).
Good picture, no sound.	• Press the ⊿ + button on the remote control. • Check that "TV Speakers" is "On" in the "Sound Adjustment" menu (see page 15). • Check that headphones are not connected.
No colour on colour programmes.	• Using the menu system, select the "Picture Adjustment" menu and select "Reset" to return to factory settings (see page 13).
When you switch on the TV the last channel you were watching before switching the TV off does not appear.	• This is not a malfunction. Press the number buttons on the remote control to select the desired channel.
Distorted picture when changing programmes or selecting teletext.	• Turn off any equipment connected to the Scart connector on the rear of the TV.
Wrong characters appear when viewing teletext.	• Use the menu system to enter the "Country" menu (see page 18) and select the country in which you operate the TV set. For cyrillic languages, we recommend selecting Russia country if your own country does not appear in the list.
Brightness level of the text or the On Screen Display symbols are notoriously decreased.	• This is not a malfunction. After 5 minutes viewing the same teletext page or with a symbol displayed on the screen and without any button being pressed, the projection TV automatically decreases the brightness level of the text and symbols displayed to avoid any damage to the picture tube. To reset the brightness level, press any button of the remote control.
Wrong characters appear when viewing NexTView.	• Use the menu system to enter the "Language" menu (see page 18) and select the same language that NexTView is broadcast in.
Snowy picture when viewing a TV channel.	• Using the menu system, select the "Manual Programme Preset" menu and adjust Fine Tuning (AFT) to obtain better picture reception (see page 20). • Using the menu system, select the "Noise Reduction" option in the "Picture Adjustment" menu and select "Auto" to reduce the noise in the picture (see page 13).
No unscrambled picture whilst viewing an unscrambled channel with a decoder or a Set Top Box connected through the Scart connector ⊕3/⊖3.	• Using the menu system, select the "Features" menu and set "AV3 Output" to "TV" (see page 17). • Check that the Decoder or the Set Top Box is not connected on the scart ⊕2/⊖2.
↓, ↑, ← and → buttons do not work in PAP mode.	• PAP navigation is only possible in TV mode, please check that Media Selector is set to TV.
Remote control does not function.	• Check that the Media Selector on the remote control is set to the device you are using (VCR, TV, DVD or AUX). • If the remote control does not operate the VCR, DVD or AUX even when the Media Selector has been set correctly. Enter the necessary code set as explained on pages 27 - 29. • Replace the batteries.
The standby indicator ⏻ on the TV flashes.	• Contact your nearest Sony service centre.

continued...

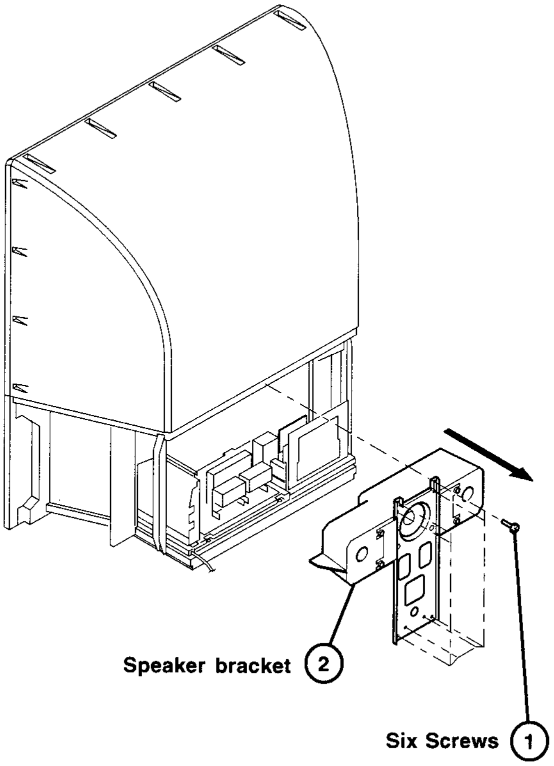
⚠
- **If you continue to experience problems, have your TV serviced by qualified personnel.**
- **Never open the casing yourself.**

SECTION 3 DISASSEMBLY

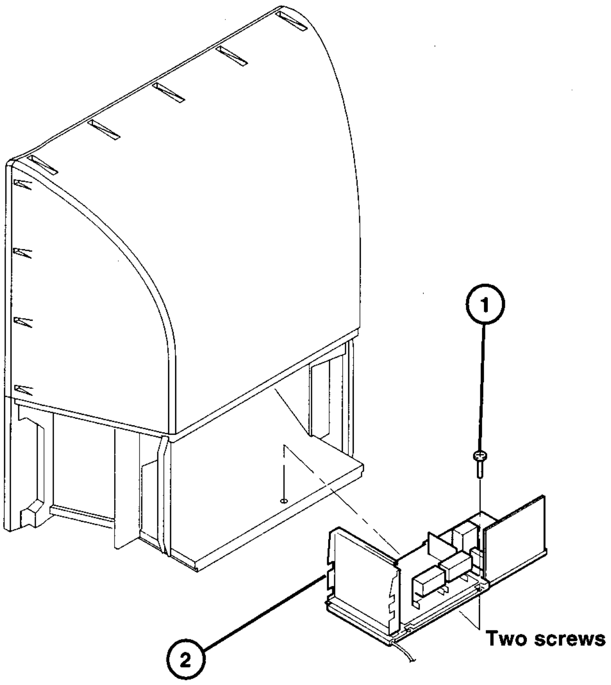
3-1. REAR COVER REMOVAL


② Rear cover
① Thirteen screws

3-2. SPEAKER BRACKET REMOVAL

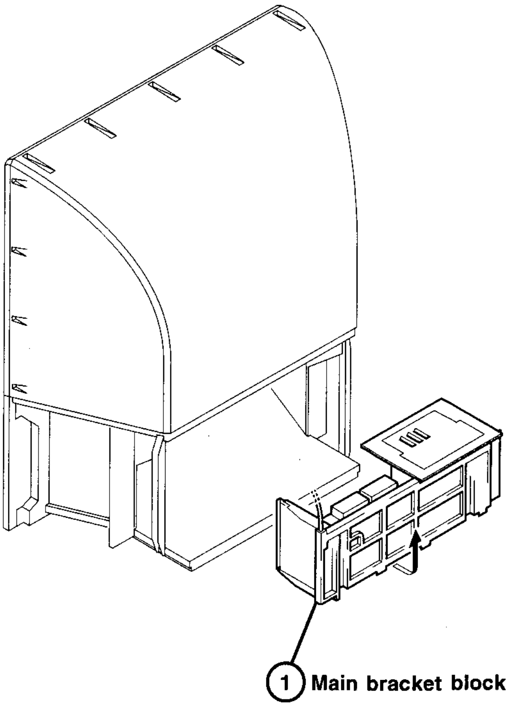

Speaker bracket ②
Six Screws ①

3-3. MAIN BRACKET BLOCK REMOVAL

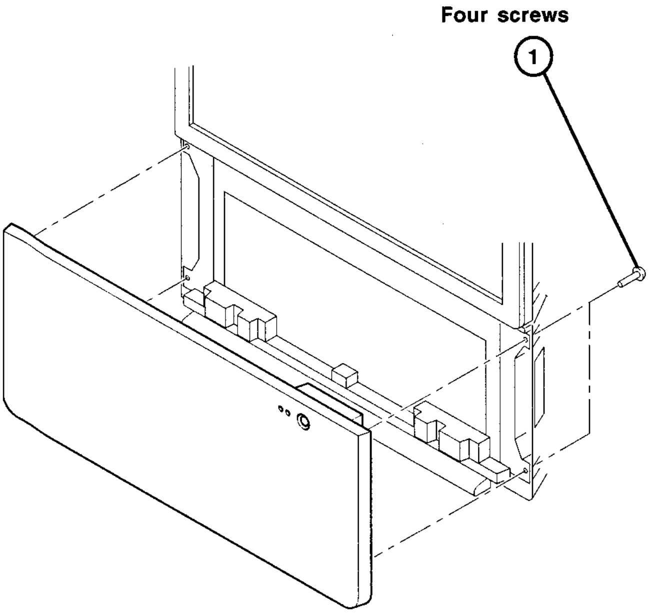

①
Two screws
②

Pull the main bracket out
and remove each connector
on main bracket block

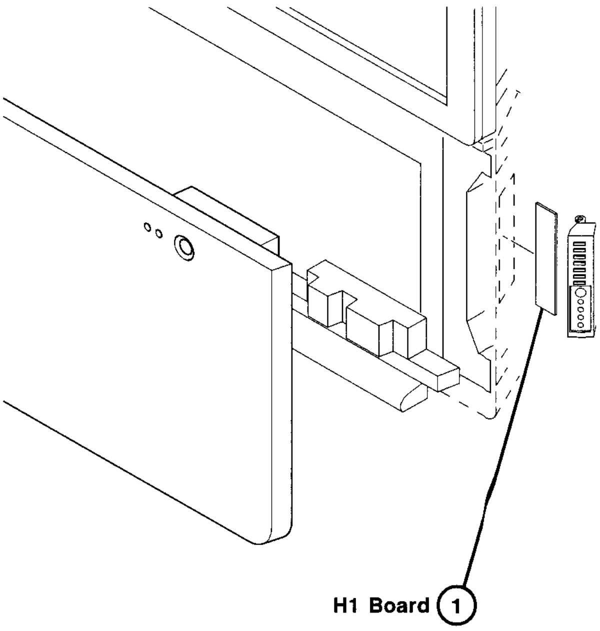
3-4. SERVICE POSITION


① Main bracket block

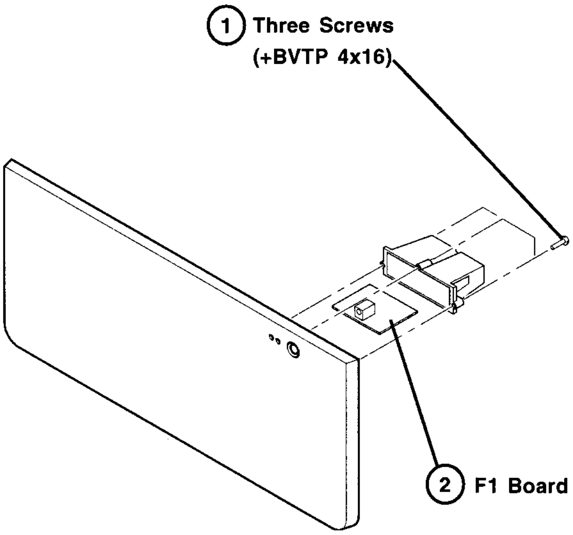
3-5. FRONT PANEL REMOVAL


Four screws
1

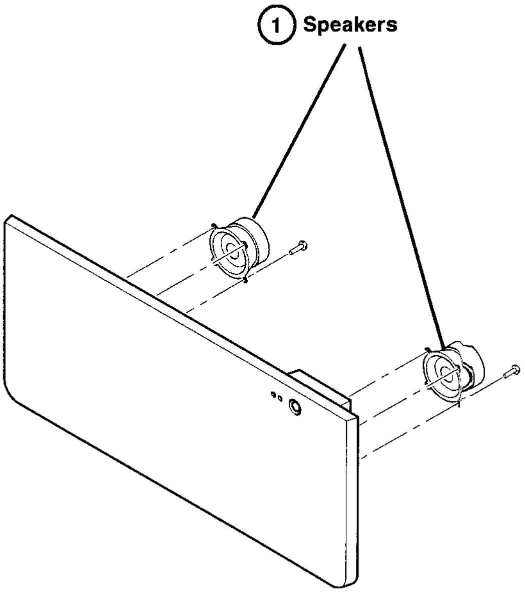
3-6. H1 BOARD REMOVAL



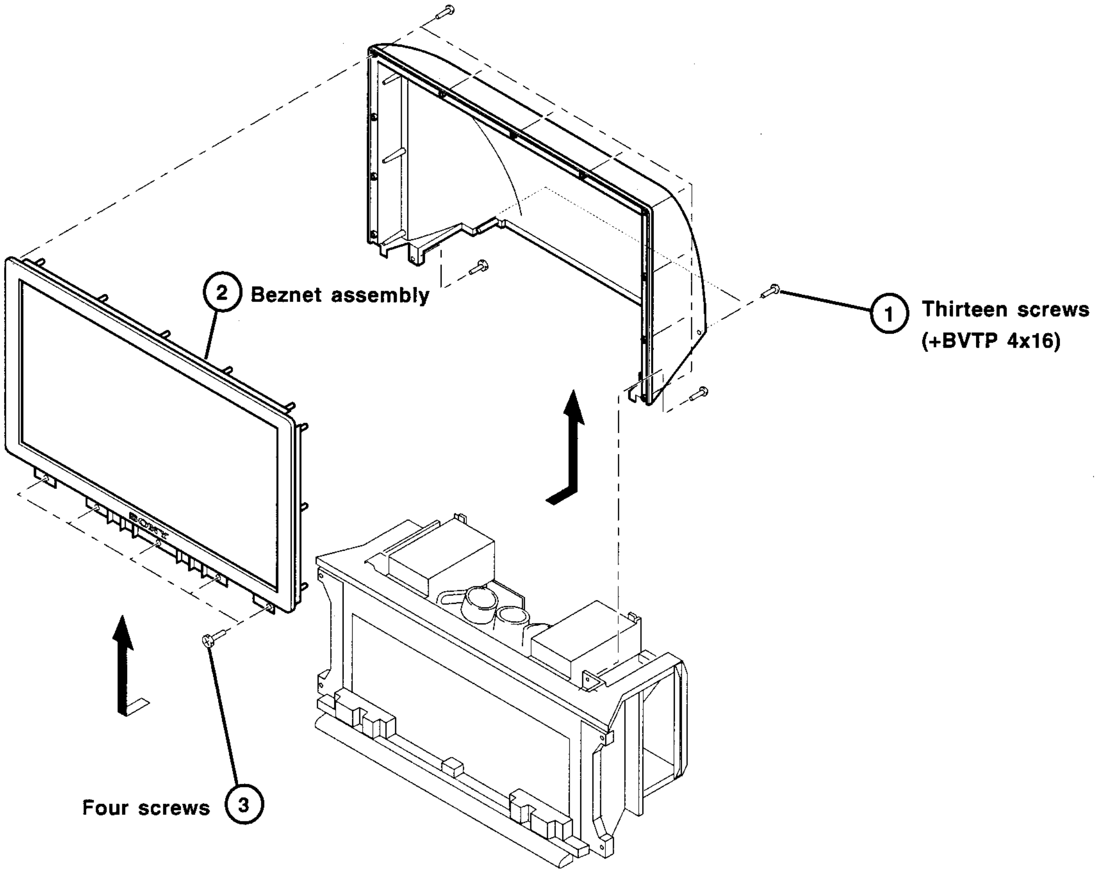
3-7. F1 BOARD REMOVAL


1 Three Screws
(+BVTP 4x16)
2 F1 Board

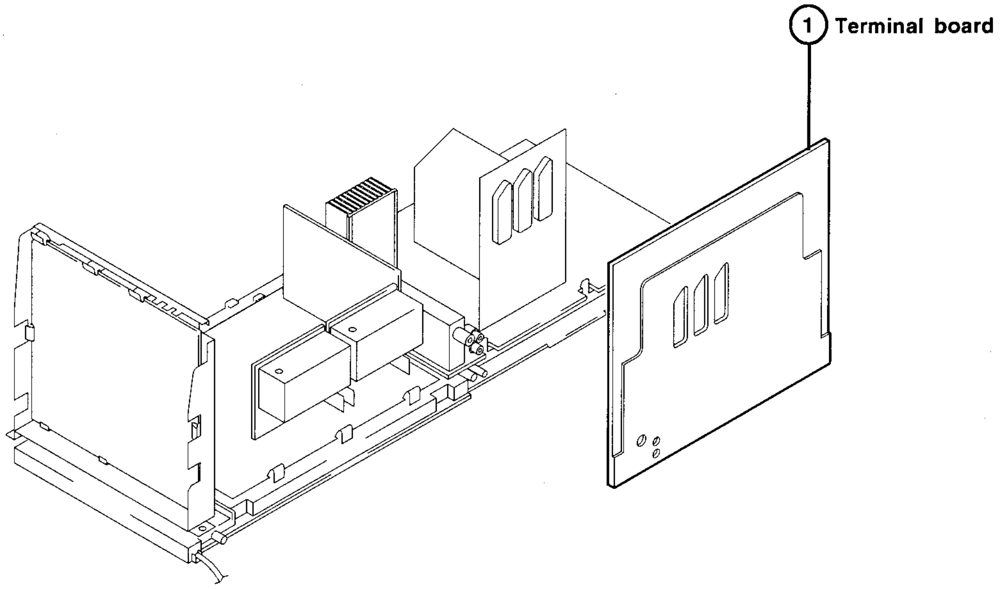
3-8. FRONT SPEAKERS REMOVAL



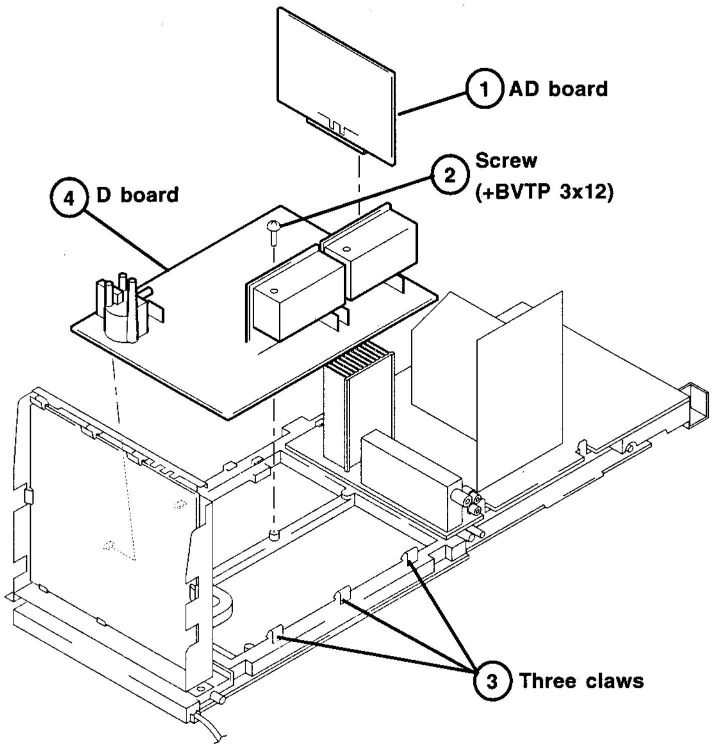
3-9. BEZNET BLOCK REMOVAL


① Thirteen screws (+BVTP 4x16)
② Beznet assembly
Four screws ③

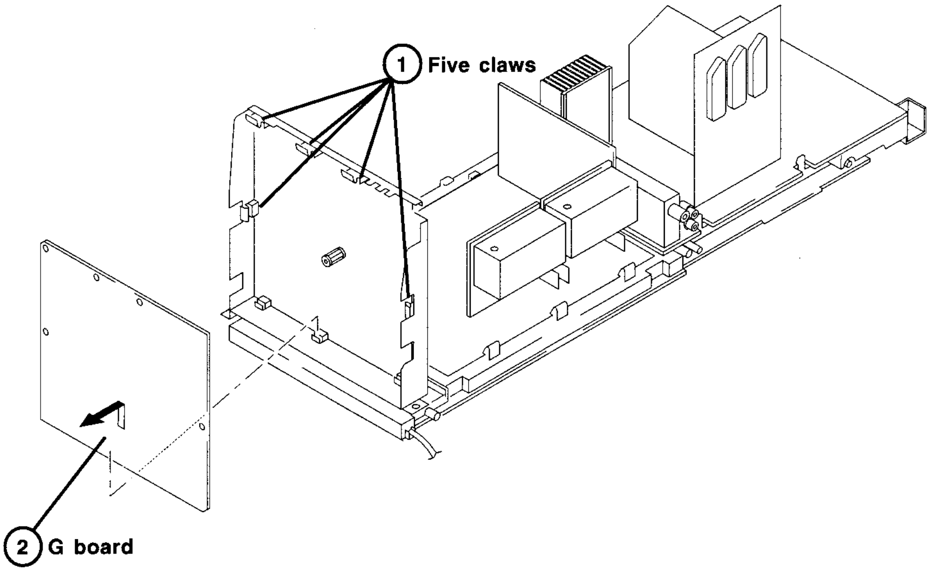
3-10. TERMINAL BOARD REMOVAL


① Terminal board

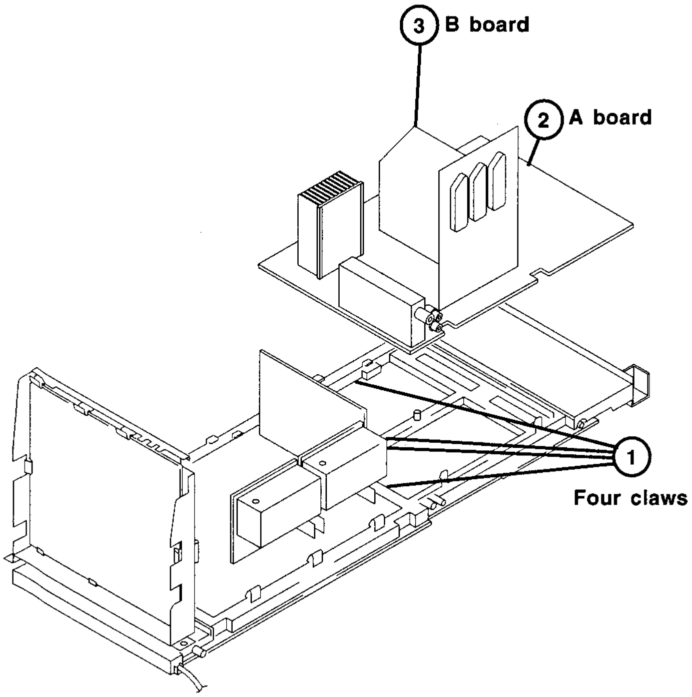
3-11. AD AND D BOARD REMOVAL


① AD board
② Screw
(+BVTP 3x12)
④ D board
③ Three claws

3-12. G BOARD REMOVAL

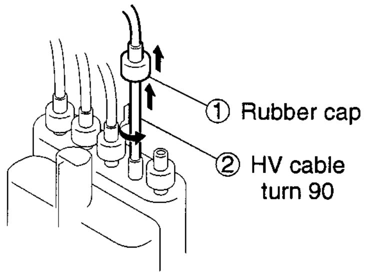

① Five claws
② G board

3-13. A BOARD REMOVAL

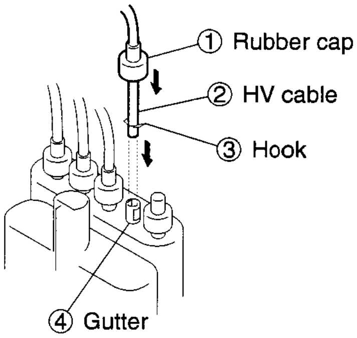

③ B board
② A board
① Four claws

3-14. HIGH_VOLTAGE CABLE REMOVAL AND INSTALLATION

(1) Removal

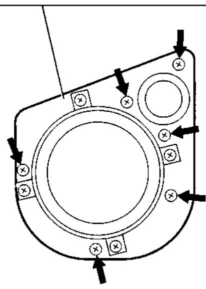

① Rubber cap
② HV cable
turn 90

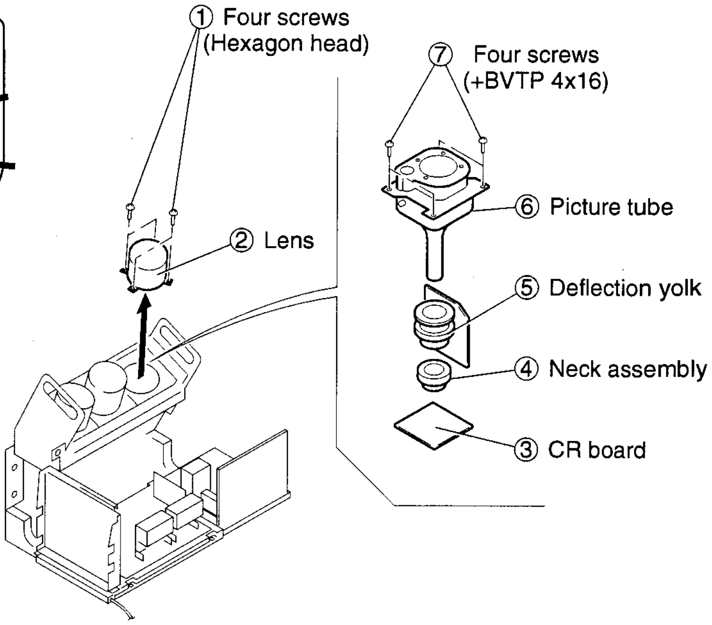
(2) Installation


① Rubber cap
② HV cable
③ Hook
④ Gutter

3-15. PICTURE TUBE REMOVAL

Removing the arrow-marked screw is strictly inhibited.
If removed, it may cause liquid spill




① Four screws
(Hexagon head)
② Lens
⑦ Four screws
(+BVTP 4x16)
⑥ Picture tube
⑤ Deflection yolk
④ Neck assembly
③ CR board

SECTION 4 SET-UP ADJUSTMENTS

4-1. SCREEN VOLTAGE ADJUSTMENT (ROUGH ALIGNMENT)

1. Receive the Monoscope signal.
2. Set 50% BRIGHTNESS and minimum PICTURE.
3. Turn the red VR on the focus pack all the way to the left and then gradually turn it to the right until the point where you can see the retrace line.
4. Next gradually turn it to the left to the position where the retrace line disappears.

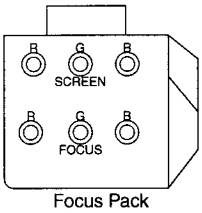
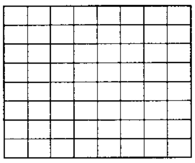


Fig. 4-1

4-2. FOCUS ROUGH ADJUSTMENT

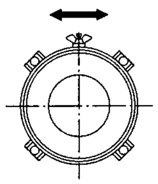
1. Loose the lens screw.
2. Program Remote Commander for operation in Service mode (See Page 24).
3. Place the caps on the red and blue lens so that only the green color is shown.
4. Press “VIDEO” “VIDEO” “5” “6” on the remote commander to enter 'Projector Engine'. Press “6” twice on the Commander to display the test signal (crosshatch) on the screen.



Test signal

Fig. 4-2

5. Rotate the green lens and align to obtain the best lens focus at the center area.
6. Rotate the green focus VR on the focus pack and align to obtain the best electrical focus at the centre area.
7. Perform the same alignment for red and blue lenses and electric focus.
8. Fix lens screw.



Lens

Fig. 4-3

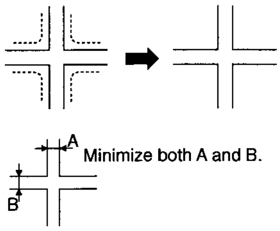


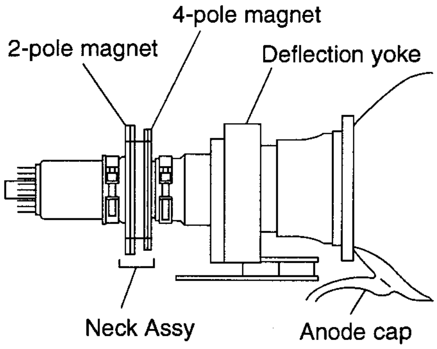
Fig. 4-4

4-3. SCREEN (G2) ADJUSTMENT

1. Turn on the power of the set.
2. Select VIDEO1 mode without signals.
3. Supply DC 175 ±0.5 V from external power supply to TP7103 (KR), TP7203 (KG) or TP7303 (KB) of CR board, CG board and CB board.
4. Adjust red, green and blue screen voltage, with SCREEN VR on the focus pack until retrace line disappears .

4-4. DEFLECTION YOKE TILT ADJUSTMENT

1. Receive the Monoscope signal.
2. Place the caps on the red and blue lens so that only the green color is shown.
3. Loosen the deflection yoke set screw and align the tilt of the Deflection yoke so that the bars at the center of the monoscope pattern are horizontal.
4. After aligning the deflection yoke, fasten it securely to the funnel-shaped portion (neck) of the CRT.
5. The tilt of the deflection yoke for red and blue is aligned the same as was done for green.



Make sure deflection yoke is touching CRT closely.

Fig. 4-5

4-5. 2-POLE MAGNET ADJUSTMENT

1. Receive the Dot signal and set PICTURE to 80%, BRIGHTNESS to 50%.
2. Place the caps on the red and blue lens so that only the green color is shown.
3. Turn the green focus VR on the focus pack to the right and set to over focus to enlarge the spot.
4. Now align the 2-Pole Magnet so that the enlarged spot is in the center of the just focus spot.
   (center of the dot doesn't move)
5. Align the green focus VR and set for just (precise) focus.
6. Perform the same alignment for red and blue.

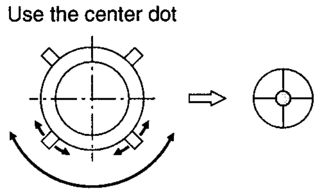


Fig. 4-6

4-6. 4-POLE MAGNET ADJUSTMENT

1. Receive the Dot signal and set PICTURE to 80%, BRIGHTNESS to 50%.
2. Place the caps on the red and blue lens so that only the green color is shown.
3. Turn the green focus VR on the focus pack to the left and set to under focus to enlarge the spot.
4. Now align the 4-Pole Magnet so that the enlarged spot becomes a perfect circle.
5. Perform the same alignment for red and blue.

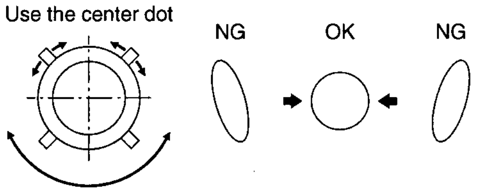


Fig. 4-7

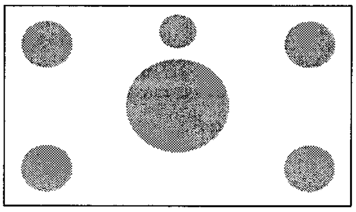
4-7. GREEN, RED AND BLUE FOCUS ADJUSTMENT

4-7-1. Green, Red and Blue Lens Focus Adjustment

1. Receive the Monoscope signal and set PICTURE to minimum BRIGHTNESS to 50%.
2. Place the caps on the red and blue lens so that only the green color is shown.
3. Rotate the green lens and adjust to obtain the best lens focus at the center area.
4. Fix lens screw.
5. Repeat above process for red and blue.

4-7-2. Green, Red and Blue Electrical Focus Adjustment

1. Receive the Monoscope signal and set PICTURE to minimum BRIGHTNESS to 50%.
2. Place the caps on the red and blue lens so that only the green color is shown.
3. Rotate the green focus VR on the focus pack and adjust to obtain the best electrical focus in all areas.
4. Repeat above process for red and blue.



Adjust Point : Circular Areas

Fig. 4-8

SECTION 5 SAFETY RELATED ADJUSTMENT

When replacing the following components marked with ◪ below always check hold-down voltage and if necessary re-adjust.

Part Replaced (⧓)
R9901

Part Replaced (◪)	
D Board	C8129, D8038, D8013, Q8024, R8002, R8055, R8102, R8218, R8219, R8223 R8230, R5140, R9901, T5102, T5104, T8005 (FBT)

5-1. HV Hold-Down Adjustment

1. Connect HV static voltmeter to HV Block.
2. Mount a resistor (R9901 : 43 k , 1/4 W, METAL FILM) at CN8015.
3. Remove CN8006 and connect External Power Supply to CN8006 1 pin (+135 V) and 2 pin (GND).
4. Turn on the set.

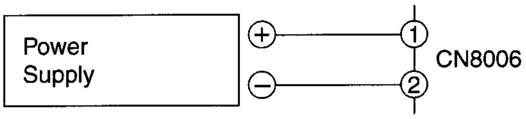
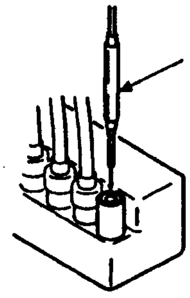


Fig. 5-1



Remove the cap off from the unused terminal and connect a HV static voltmeter there.

Fig. 5-2

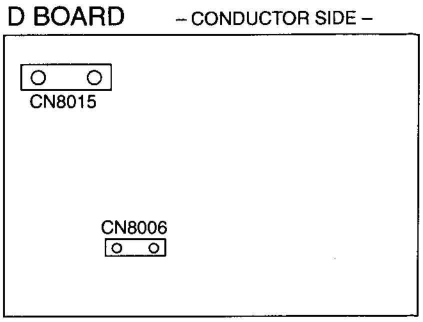


Fig. 5-3

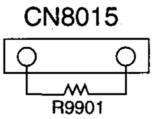


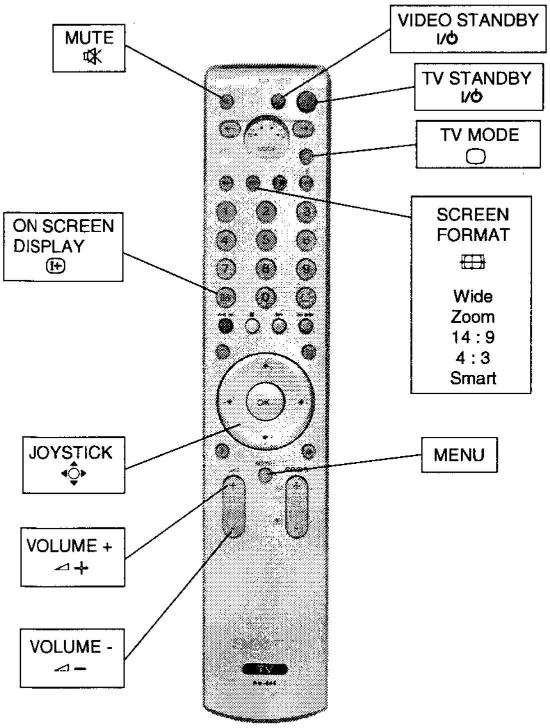
Fig. 5-4

5. Receive the Dot signal and set PICTURE/ BRIGHTNESS to minimum.
6. Slowly up the supply voltage from 0 V to 135 V until hold-down circuit works (picture disappears).
7. Read the HV static voltmeter peak HV voltage. Spec : 33.7 ~ 35.3 kV
8. If Hold-down voltage is less than 33.7 kV then replace R9901 43 k with that of 39 k , and check if the voltage is within the spec.
9. If hold-down voltage is greater than 35.3 kV then replace R9901 of 43 k with that of 47 k , and check if the voltage is within the spec.

SECTION 6 ELECTRICAL ADJUSTMENTS

6-1. Adjustments with Commander

Service adjustments to this model can be performed using the supplied remote Commander RM-945.



6-1-1. How to Select Each Mode

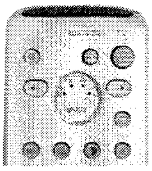
1. Selection of Mode Between PAL and NTSC

PAL mode	: Enter PAL signal.
NTSC mode	: Enter NTSC signal. (VIDEO input only)

2. Selection of Screen Format

1. Press '⊞' button on the commander. to select '16 : 9' or '4 : 3'.

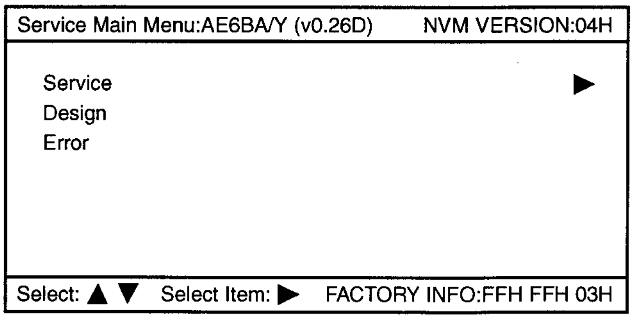
6-1-2. Programming the Remote Commander for Operation in Service Mode



1. Press and hold the left Mode Select button until the VCR and DVD LED's flash.
2. Press 99999. The TV LED should light. The remote commander is now set to Service Mode.
3. To return the remote commander to normal operation mode repeat step 1. then press 00000. The TV LED should light. The remote commander is now set to normal mode.

6-1-3. Setting the TV into Service Mode

1. Program the remote commander for operation in Service Mode as described above.
2. Turn on the TV main power switch.
3. Press the 'aux/video' standby button on the remote commander twice.
   'TT__' will appear in the upper right corner of the screen. Other status information will also be displayed.
4. Press 'MENU' on the remote commander to obtain the following menu on the screen.



Service Main Menu:AE6BA/Y (v0.26D) NVM VERSION:04H

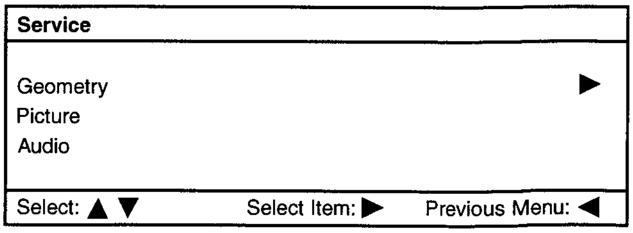
Service ▶
Design
Error

Select: ▲ ▼ Select Item: ▶ FACTORY INFO:FFH FFH 03H

5. Move to the corresponding adjustment item using the up or down arrow buttons on the Remote Commander.
6. Press the right arrow button to enter into the required menu item.
7. Press the 'aux/video' button on the Remote Commander to quit the Service Mode when all adjustments have been completed.

Note :

- After carrying out the service adjustments, to prevent the customer accessing the 'Service Menu' switch the TV set OFF and then ON.
  Ensure Remote Commander is returned to normal operation mode.



Service

Geometry ▶
Picture
Audio

Select: ▲ ▼ Select Item: ▶ Previous Menu: ◀

Geometry

Wide mode adjustment ▶
Screen offsets
Frequency offsets

Select: ▲ ▼ Select Item: ▶ Previous Menu: ◀

Wide mode adjustment

Description	(min,max)	Default	Value
V AMP	(-128,127)	35	35 ▶
V ZOOM	(0,510)	256	256
V POS	(-512,511)	-10	-10
V LIN	(-128,127)	0	0
V SCORR	(-128,1270)	4	4
H WIDTH	(-256,255)	63	63
V TRAP	(-128,127)	1	1
PIN AMP	(-511,511)	-80	-80
UP COR	(-128,127)	-1	-1
LOW COR	(-128,127)	-2	-2
H POS	(-600,600)	10	10
ANGLE	(-511,511)	-1	-1
BOW	(-511,511)	8	8
H LIN	(0,255)	85	84
H TRAP	(0,255)	138	138
H SCORR	(0,255)	100	100
UP COR 6	(-128,127)	-1	-1
LOW COR 6	(-128,127)	0	0
PIN UNBAL	(-240,240)	-40	-40
MID PIN	(-240,240)	-60	-60

Select: ▲ ▼ Select Item: ▶ Previous Menu: ◀

Picture

White balance ▶
Colour Tone
Picture settings

Select: ▲ ▼ Select Item: ▶ Previous Menu: ◀

Picture settings

Description	(min,max)	Default	Value
SUBCOLOR PAL	(0,63)	31	34 ▶
SUBCOLOR SECAM	(0,63)	31	34
SHP MAXLTI	(0,31)	31	20
SHP MAXPEAK	(0,15)	15	12
CONTRAST MIN	(0,63)	17	17
CONTRAST MAX	(0,63)	59	59
BRIGHT EXPAND	(0,511)	400	400
BRIGHT CENTER	(-256,255)	10	40

Select: ▲ ▼ Select Item: ▶ Previous Menu: ◀

Audio

BBE OFF mode ▶
BBE Natural/V.Dolby offsets
BBE Dynamic offsets
BBE Cinema offsets
Subwoofer level adjustments
Audio detection thresholds

Select: ▲ ▼ Select Item: ▶ Previous Menu: ◀

BBE OFF mode

Description	(min,max)	Default	Value
SW_FREQ_OFF	(5,40)	20	20 ▶
BAND1_OFF_OFFSET	(-96,96)	0	0
BAND2_OFF_OFFSET	(-96,96)	0	0
BAND3_OFF_OFFSET	(-96,96)	0	0
BAND4_OFF_OFFSET	(-96,96)	0	0
BAND5_OFF_OFFSET	(-96,96)	0	0
BBE_LOUDNESS_OFF	(0,68)	0	0

Select: ▲ ▼ Select Item: ▶ Previous Menu: ◀

Design

CXA2149 - AVSwitch Device ▶
DDP3315 - Backend Device
MSP3411 - Sound Processor Device
TDA988x - IF Device
TUA60xx - PLL Device
VSP9427 - Video Processor Device
CXA2019 - Chroma Decoder
CXD3804 - 3D Comb Filter
CXA8070 - Dynamic Convergence Device
FRC9429 - FRCA Device
PJ Engine

Select: ▲ ▼ Select Item: ▶ Previous Menu: ◀

Error monitor

WORKING TIME: **(Hours:Minutes)** 82:33

Error counters:

E02:	OCP	0
E03:	OVP	0
E04:	NO V SYNC	0
E05:	IKR	0
E06:	IIC	0
E07:	NVM	0
E08:	H PROT	0
E09:	TUNER	0
E10:	SOUND	0
E11:	9 VOLTS	0
E12:	SCANRATE	0
E13:	3DCOMB	0
E14:	BACKEND	0
E15:	DYNCON	0
E16:	HIGH VOLTAGE	0
E17:	AVSWITCH	0
E18:	CHROMA DEC	0
E19:	FRCA	0
E20:	PJ ENG	0
E21:	DAC	0
E24:	SPEAKER PROT	0
E25:	MEMORY STICK	0

Select: ▲ ▼ Previous Menu: ◀

6-1-4. Service List (Projector Engine)

: Fixed data. xxxx : Cannot change.

Item		Data Range	Standard Data								Name/Description
			PAL				NTSC				
No.	Name		Wide	Zoom	14 : 9	Smart	Wide	Zoom	14 : 9	Smart	
00	FDIS	00, 01	00				00				Switch of display for fine adjustment data
01	COPY	00, 01	00				00				Service copy adjustment
02	ALCP	00, 01	00				00				Service all copy adjustment
03	OSDH	01 ~ 255	26				26				OSD horizontal position of PJED service menu
04	OSDV	01 ~ 255	32	52			24	42			OSD vertical position of PJED service menu
05	FVSL	00 ~ 15	00	14	15		00	14	15		Start position of fine adjustment
06	FVSP	00 ~ 255	05	17	09		05	16	17		Start line of fine adjustment
07	V1DL	00 ~ 255	01	77	48		01	52	23		Value of V1 delay
08	V1CU	00 ~ 4095	750	985	880		897	1183	1001		Value of V1 count up
09	V1OH	00 ~ 255	40				30	03	20		Value of V1 offset higher data
10	V1OL	00 ~ 255	00				01				Value of V1 offset lower data
11	OEVP	00 ~ 4095	1056				1056				Odd/Even select position
12	COHP	00 ~ 4095	4095				4095				Horizontal phase for rough adjustment
13	34CS	00 ~ 31	14				14				Start center clamp position of H3 and H4 pulse
14	34CW	00 ~ 31	00				00				Width center clamp position of H3 and H4 pulse
15	FIHP	00 ~ 4095	1110				1110				Horizontal phase for fine adjustment
16	TPHP	00 ~ 4095	67				67				Horizontal phase for test pattern
17	TPVP	00 ~ 255	26	58	46		20	49	33		Vertical phase for test pattern
18	DFHP	00 ~ 4095	100				100				Horizontal phase for dynamic focus
19	DFHG	Đ128 ~ 127	-90				-90				Value of horizontal parabola wave for dynamic focus
20	DFVG	Đ128 ~ 127	-40				-40				Value of vertical parabola wave for dynamic focus
21	DFDC	Đ128 ~ 127	127				127				Value of center for dynamic focus
22	DFV1	Đ128 ~ 127	00				00				Value of V1 saw wave for dynamic focus
23	SDHP	00 ~ 4095	00				00				Compensation of horizontal phase for shading
24	SDH1	Đ128 ~ 127	00				00				Value of horizontal saw wave for dynamic focus
25	RVCS	00 ~ 31	00				00				Start position of RED vertical clamp
26	RVCW	00 ~ 31	00				00				Width of RED vertical clamp
27	GVCS	00 ~ 31	00				00				Start position of GREEN vertical clamp
28	GVCW	00 ~ 31	00				00				Width of GREEN vertical clamp
29	BVCS	00 ~ 31	00				00				Start position of BLUE vertical clamp
30	BVCW	00 ~ 31	00				00				Width of BLUE vertical clamp
31	RHCS	00 ~ 31	00				00				Start position of RED horizontal clamp
32	RHCW	00 ~ 31	00				00				Width of RED horizontal clamp
33	GHCS	00 ~ 31	00				00				Start position of GREEN horizontal clamp
34	GHCW	00 ~ 31	00				00				Width of GREEN horizontal clamp
35	BHCS	00 ~ 31	00				00				Start position of BLUE horizontal clamp
36	BHCW	00 ~ 31	00				00				Width of BLUE horizontal clamp
37	BDVU	00 ~ 2047	23	18	27	21	23	18	27	21	Vertical position for border line 1
38	BDVL	00 ~ 2047	905	686	1061	811	905	686	1061	811	Vertical position for border line 2
39	BDHL	00 ~ 2047	159				159				Horizontal position for border line 1
40	BDHR	00 ~ 2047	1253				1253				Horizontal position for border line 2
41	HBLD	00 ~ 4095	00				00				Horizontal phase for output of H.Blank out
42	HBLW	00 ~ 4095	00				00				Width for output of H.Blank out
43	PWM2	00 ~ 4095	00				00				PWM2 output width setting of Regi. IC
44	COGV	Đ128 ~ 127	00				00				GREEN vertical center offset data for Auto Regi.
45	CORV	Đ128 ~ 127	00				00				RED vertical center offset data for Auto Regi.
46	COBV	Đ128 ~ 127	00				00				BLUE vertical center offset data for Auto Regi.
47	COGH	Đ128 ~ 127	00				00				GREEN horizontal center offset data for Auto Regi.
48	CORH	Đ128 ~ 127	00				00				RED horizontal center offset data for Auto Regi.
49	COBH	Đ128 ~ 127	00				00				BLUE horizontal center offset data for Auto Regi.

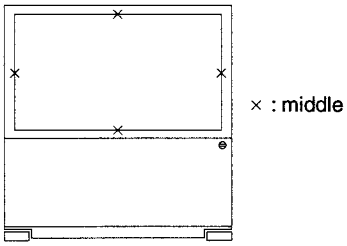
Item		Data Range	Standard Data								Name/Description
No.	Name		PAL				NTSC				
			Wide	Zoom	14 : 9	Smart	Wide	Zoom	14 : 9	Smart	
50	SOGV	−128 ~ 127	00				00				GREEN vertical skew offset data for Auto Regi.
51	SORV	−128 ~ 127	00				00				RED vertical skew offset data for Auto Regi.
52	SOBV	−128 ~ 127	00				00				BLUE vertical skew offset data for Auto Regi.
53	SOGH	−128 ~ 127	00				00				GREEN horizontal skew offset data for Auto Regi.
54	SORH	−128 ~ 127	00				00				RED horizontal skew offset data for Auto Regi.
55	SOBH	−128 ~ 127	00				00				BLUE horizontal skew offset data for Auto Regi.
56	ZOGH	−128 ~ 127	00				00				GREEN horizontal size offset data for Auto Regi.
57	ZORH	−128 ~ 127	00				00				RED horizontal size offset data for Auto Regi.
58	ZOBH	−128 ~ 127	00				00				BLUE horizontal size offset data for Auto Regi.
59	LOGH	−128 ~ 127	00				00				GREEN horizontal linearity offset data for Auto Regi.
60	LORH	−128 ~ 127	00				00				RED horizontal linearity offset data for Auto Regi.
61	LOBH	−128 ~ 127	00				00				BLUE horizontal linearity offset data for Auto Regi.
62	ERR	00 ~ 255	00				00				Auto Regi. Error code
63	ADTM	00 ~ 127	80				120				A/D data input timing of Auto Regi.
64	VUP	00 ~ 2047	31				45				Auto Regi. Pattern upper vertical position
65	VUPM	00 ~ 2047	00				00				Auto Regi. Pattern upper middle vertical position
66	VMID	00 ~ 2047	290				475				Auto Regi. Pattern middle vertical position
67	VLOM	00 ~ 2047	00				00				Auto Regi. Pattern lower middle vertical position
68	VLOW	00 ~ 2047	560				930				Auto Regi. Pattern lower vertical position
69	HLE	00 ~ 4095	135				135				Auto Regi. Pattern left horizontal position
70	HLEM	00 ~ 4095	00				00				Auto Regi. Pattern left middle horizontal position
71	HMID	00 ~ 4095	640				645				Auto Regi. Pattern middle horizontal position
72	HRIM	00 ~ 4095	00				00				Auto Regi. Pattern right middle horizontal position
73	HRIV	00 ~ 4095	1170				1170				Auto Regi. Pattern right horizontal position
74	SFTF	00, 01	00				00				Switch of shift fast 00 : Normal 01 : Quick
75	ACTL	00 ~ 255	00				00				Account time counter lower byte
76	ACTH	00 ~ 255	00				00				Account time counter higher byte
77	SLSW	00 ~ 03	00				00				Auto Regi. Adjustment item select
GRN	CENT	−512 ~ 511	000/000				000/000				GREEN Horizontal/Vertical center
	SKEW	−512 ~ 511	000/000				000/000				GREEN Horizontal/Vertical skew
	SIZE	−512 ~ 511	000/−200				000/−200				GREEN Horizontal/Vertical size
	LIN	−512 ~ 511	000/000				000/000				GREEN Horizontal/Vertical linearity
	KEY	−512 ~ 511	xxxx/000				xxxx/000				GREEN Vertical keystone
	PIN	−512 ~ 511	000/250				000/250				GREEN Horizontal/Vertical pincushion
	MLIN	−512 ~ 511	000/xxxx				000/xxxx				GREEN Horizontal mid linearity
	MSIZ	−512 ~ 511	000/xxxx				000/xxxx				GREEN Horizontal mid size
BLU	CENT	−512 ~ 511	000/000				000/000				BLUE Horizontal/Vertical center
	SKEW	−512 ~ 511	000/000				000/000				BLUE Horizontal/Vertical skew
	SIZE	−512 ~ 511	000/−200				000/−200				BLUE Horizontal/Vertical size
	LIN	−512 ~ 511	000/000				000/000				BLUE Horizontal/Vertical linearity
	KEY	−512 ~ 511	xxxx/000				xxxx/000				BLUE Vertical keystone
	PIN	−512 ~ 511	000/250				000/250				BLUE Horizontal/Vertical pincushion
	MLIN	−512 ~ 511	000/xxxx				000/xxxx				BLUE Horizontal mid linearity
	MSIZ	−512 ~ 511	000/xxxx				000/xxxx				BLUE Horizontal mid size
RED	CENT	−512 ~ 511	000/000				000/000				RED Horizontal/Vertical center
	SKEW	−512 ~ 511	000/000				000/000				RED Horizontal/Vertical skew
	SIZE	−512 ~ 511	000/−200				000/−200				RED Horizontal/Vertical size
	LIN	−512 ~ 511	000/000				000/000				RED Horizontal/Vertical linearity
	KEY	−512 ~ 511	xxxx/000				xxxx/000				RED Vertical keystone
	PIN	−512 ~ 511	000/250				000/250				RED Horizontal/Vertical pincushion
	MLIN	−512 ~ 511	000/xxxx				000/xxxx				RED Horizontal mid linearity
	MSIZ	−512 ~ 511	000/xxxx				000/xxxx				RED Horizontal mid size

6-2. Registration Adjustments

6-2-1. Setup for Adjustment

1. Marking

1. At the 4 insides of the screen, locate the middle. Use a tape measure to identify the middle.



2. Data Setting

1. Set PAL-Wide mode.
2. Program the remote commander for operation in Service Mode (See Page 24).
3. Press 'VIDEO', 'VIDEO' ,'5', '6' on the commander to enter Projector Engine.
4. Press '7' + '0' (READ) buttons on the commander to read the data from NVM. Then all the default data are restored.

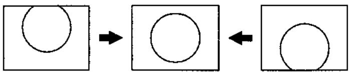
Note : When replacement of printed circuit boards, devices or CRTs, and major correction is necessary, press '5' + '0' (PJE INITIAL) buttons to initialize the data in the Projector Engine mode.
Press '🔇 (MUTE)' + '0' buttons on the commander to write the data.

6-2-2. Main Deflection Adjustment

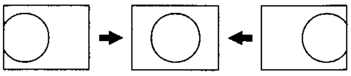
The data values are same in all modes, and therefore the adjustment for the PAL-Wide mode only is performed here.

1. Place the caps on the red and blue lenses so that only the green color is displayed.
2. Enter the PAL SPCB signal and set the TV to PAL mode.
3. Set the screen format to "Wide".
4. Program the remote commander for operation in Service Mode and enter Service Menu(See Page 24).
5. Select 'Geometry' from the service menu.
6. Adjust "V-Position" and "H-Position" so that the picture is displayed in the center of screen.

V-Position



H-Position

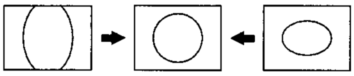


7. Adjust "V-Size" and "H-Size" so that the picture size is within the specification.

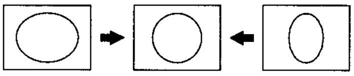
SPEC **Overscan Spec. = 7.5%**

Input Signal	H SIZE	V SIZE
PAL SPCB	16.7 ± 0.1 sq.	12.5 ± 0.1 sq.

V-Size

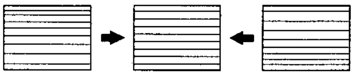


H-Size

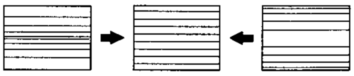


8. Adjust the following items so as to attain the optimum picture.

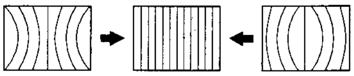
V-Linear



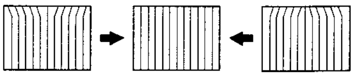
S-Corr



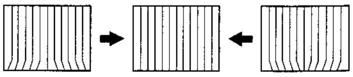
Pin Amp



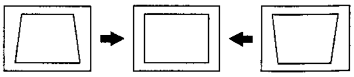
Up-CPin



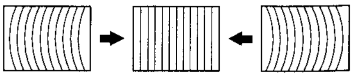
Lo-CPin



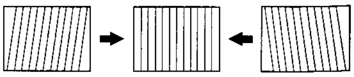
Trapezium



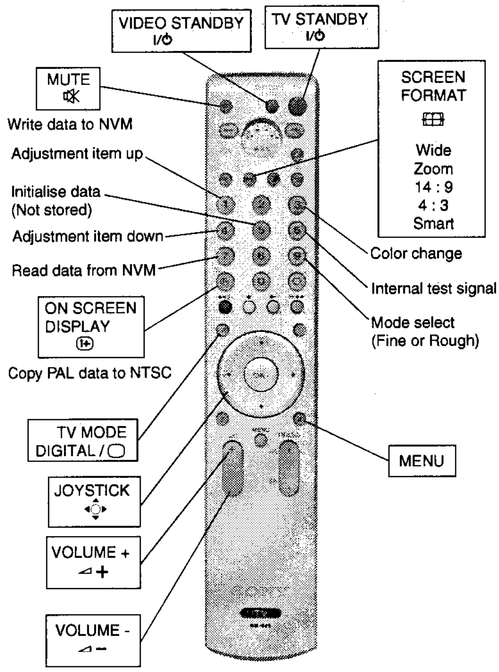
AFC-Bow



AFC-Angle



6-2-3. Operation Method for Projector Engine Mode


VIDEO STANDBY I/⏻
TV STANDBY I/⏻
MUTE 🔇
Write data to NVM
Adjustment item up
Initialise data (Not stored)
Adjustment item down
Read data from NVM
ON SCREEN DISPLAY (i+)
Copy PAL data to NTSC
TV MODE DIGITAL/○
JOYSTICK
VOLUME +
VOLUME -
SCREEN FORMAT
Wide
Zoom
14 : 9
4 : 3
Smart
Color change
Internal test signal
Mode select (Fine or Rough)
MENU

1. Functions of Keys on Commander

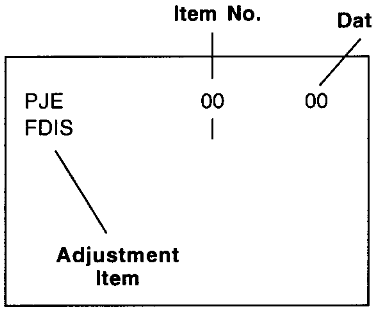
- 1 : Changes adjustment item. (item No. moves up)
  : Marker moves clockwise from center to outside. (in fine adjustment mode)
- 4 : Changes adjustment item. (item No. moves down)
  : Marker moves counterclockwise from outside to center. (in fine adjustment mode)
- ▲ ▼ ◀ ▶: Changes data value. (up or down)
  : Marker moves up, down, or to the left or right. (in fine adjustment mode)
- 3 : Changes adjustment color.
  (except item No. 00~77) GRN ▶ BLU ▶ RED
- 6 : Displays or changes internal test signals.
  : crosshatch + external signal ▶ crosshatch only ▶ crosshatch only ▶ dot only ▶ off
- 9 : Switches adjustment mode.
  rough adjustment mode c fine adjustment mode
- (OK) : Switches marker moving method.
  (in fine adjustment mode)
  joystick (▲, ▼, ◀, ▶) keys → ① and ④ buttons

Commander Function

Buttons	Mode	Description
🔇 + ⓪	WRITE	Writes data to NVM.
⑦ + ⓪	READ	Reads data from NVM.
⑤ + ⓪	PJE INITIAL	Service data initialization. Not stored. (Be sure not to use usually)
(i+) + ⓪	PJE	Copies data of PAL mode to NTSC mode

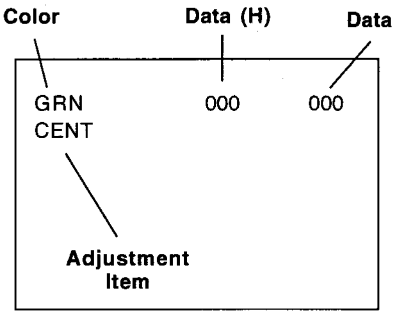
2. Operation Method for Rough Adjustment

1. Press 'VIDEO', 'VIDEO' ,'5', '6' on the commander to enter Projector Engine.
2. Press '1' or '4' button on the commander to select the item, and press ▲, ▼, ◀, ▶ key on the joystick to change the data.


Item No.
Data
PJE
FDIS
00
00
Adjustment Item

▲, ▶ : Data up
▼, ◀ : Data down

3. Select "GRN CENT". When BLU or RED is displayed, press "3" button on the commander to change the adjustment color in the order of GRN → BLU → RED.
4. In the GRN, BLU, or RED mode, ▲, ▼ keys on the joystick can change the data in vertical direction, or ◀, ▶ keys in horizontal direction.


Color
Data (H)
Data (V)
GRN
CENT
000
000
Adjustment Item

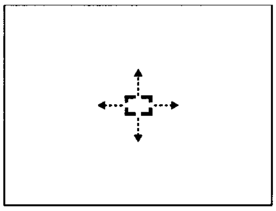
◀ : Data (H) up
▶ : Data (H) down
▲ : Data (V) up
▼ : Data (V) down

5. Before returning to the Service menu, press "🔇 (MUTE)" +"0" buttons on the commander to write the data. (Omission of this operation causes the set data to be returned to the data before adjustment)
6. Press "MENU" button on the commander to return to the Service menu.

3. Operation Method for Fine Adjustment (in GRN, BLU, or RED Mode)

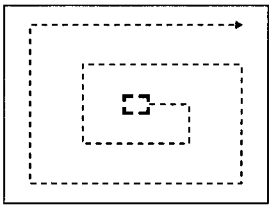
1. Select the Projector Engine mode.
2. Select FDIS so that the data at each position can be displayed in the fine adjustment mode, and set the data to “01”.
3. Press “9” button on the commander, and the fine adjustment mode will be active where a green marker appears in the center of screen (in the case of GRN mode).
4. Press “◂○▸ (OK)” button, and the marker color will be switched between green (GRN mode) and white alternately.
5. Use “1” or “4” button on the commander, or the joystick to move the marker to the position to be adjusted, where fine adjustment can be made.

- When marker color is white.
  (in this case, fine adjustment is disabled)



Operating the joystick can move the marker up, down, or to the left or right freely.

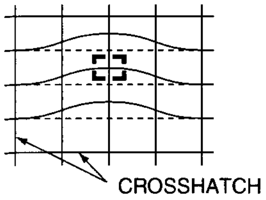
- When marker color is green. (GRN mode)



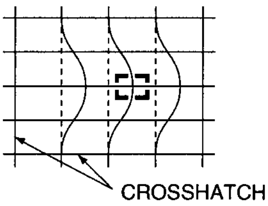
1 : moves the marker clockwise from center to outside.
4 : moves the marker counterclockwise from outside to center.

- Fine adjustment can be made on the basis of marker position using ▲, ▼, ◀, ▶ keys on the joystick.

Movement when ▲ key on joystick is pressed.



Movement when ▶ key on joystick is pressed.



6. Press “9” button on the commander to return to the rough adjustment mode.

6-2-4. Projector Engine Adjustment (Sub Deflection Adjustment)

Adjustment O : Yes – : No

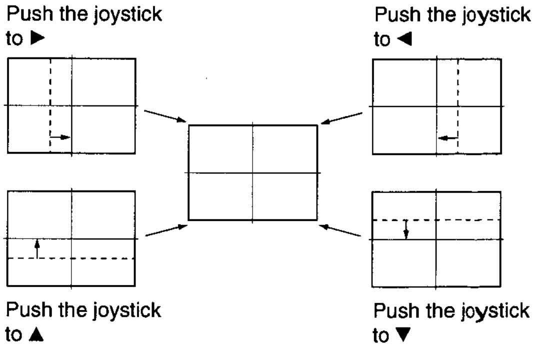
Adjustment Item	Adjustment Type		
	GRN	RED	BLU
	H / V	H / V	H / V
CENT	O / O	O / O	O / O
SKEW	O / O	O / O	O / O
SIZE	O / O	O / O	O / O
LIN	O / O	O / O	O / O
KEY	– / O	– / O	– / O
PIN	O / O	O / O	O / O
MLIN	O / –	O / –	O / –
MSIZ	O / –	O / –	O / –

<Adjustment for PAL-Wide Mode>

1. Green Adjustment

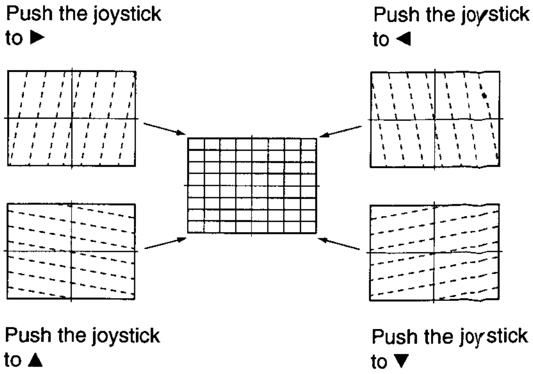
1. Place the caps on the red and blue lenses so that only the green color is displayed.
2. Enter the PAL SPCB signal to set the PAL mode.
3. Set the screen format to “Wide”.
4. Select the Projector Engine mode.
5. Press “6” button on the commander to display internal test signal (crosshatch).
6. Select “GRN CENT”, and adjust so that the picture coincide in the center of screen.

• GRN CENT (horizontally/vertically)



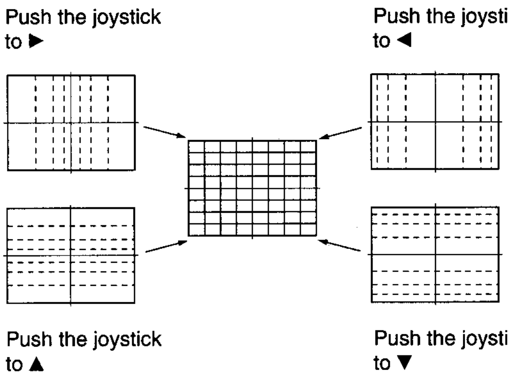
7. Select “GRN SKEW”, and correct the tilt of horizontal lines and vertical lines.

• GRN SKEW (horizontally/vertically)



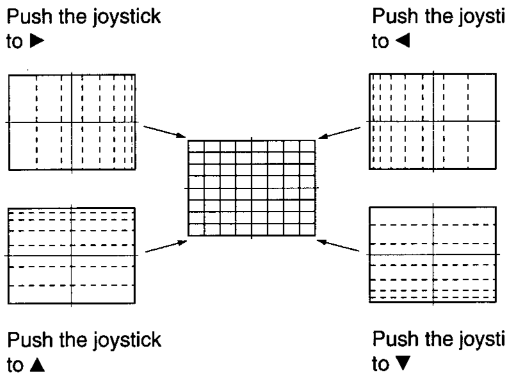
8. Select “GRN SIZE”, and adjust so that each distance from center to left end and to right end is equal. Adjust so that each distance from center to top and to bottom is equal.

• GRN SIZE (horizontally/vertically)


Push the joystick to ▶
Push the joystick to ◀
Push the joystick to ▲
Push the joystick to ▼

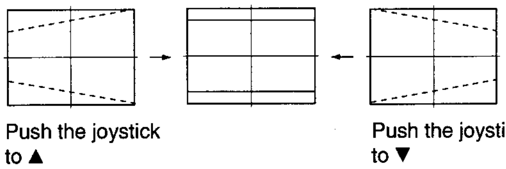
9. Select “GRN LIN”, and adjust so that each space at the right end and at the left end of screen is equal. Adjust so that each space at the top and at the bottom of screen is equal.

• GRN LIN (horizontally/vertically)


Push the joystick to ▶
Push the joystick to ◀
Push the joystick to ▲
Push the joystick to ▼

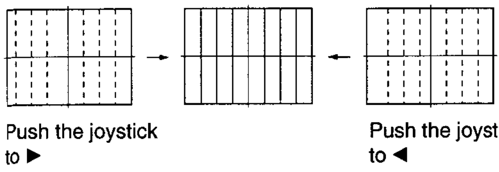
10. Select “GRN KEY”, and adjust so that upper and lower horizon tal lines on the screen become parallel.

• GRN KEY (vertically)


Push the joystick to ▲
Push the joystick to ▼

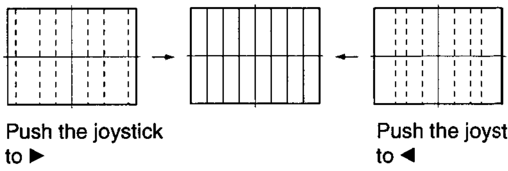
11. Select “GRN MLIN”, and correct the sizes of the horizontal line at the center of the screen are symmetrical left and right.

• GRN MLIN (horizontally)


Push the joystick to ▶
Push the joystick to ◀

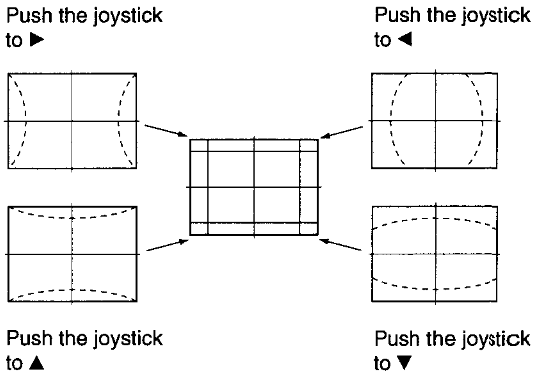
12. Select “GRN MSIZ”, and correct the space intervals for the horizontal section of the screen are equal.

• GRN MSIZ (horizontally)


Push the joystick to ▶
Push the joystick to ◀

13. Select “GRN PIN”, and adjust so that right and left vertical lines on the screen become straight. Adjust so that upper and lower horizontal lines on the screen become straight.

• GRN PIN (horizontally/vertically)


Push the joystick to ▶
Push the joystick to ◀
Push the joystick to ▲
Push the joystick to ▼

14. Press “9” button on the commander to enter the fine adjustment mode.
15. Make fine adjustment so that horizontal lines and vertical lines become straight.
16. Press “9” button on the commander to return to the rough adjustment mode.

2. Blue Adjustment

1. Place a cap on the red lens so that green and blue colors are displayed.
2. Press “3” button on the commander to select BLU mode.
3. Adjust the following items so that blue lines overlap with green lines.

- BLU CENT (horizontally/vertically)
- BLU SKEW (horizontally/vertically)
- BLU SIZE (horizontally/vertically)
- BLU LIN (horizontally/vertically)
- BLU KEY (vertically)
- BLU PIN (horizontally/vertically)
- BLU MLIN (horizontally)
- BLU MSIZ (horizontally)

4. Press “9” button on the commander to enter the fine adjustment mode.
5. Make fine adjustment so that horizontal lines and vertical lines overlap with green lines.
6. Press “9” button on the commander to return to the rough adjustment mode.

3. Red Adjustment

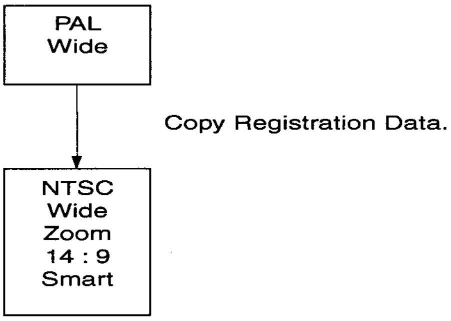
1. Place a cap on the blue lens so that green and red colors are displayed.
2. Press “3” button on the commander to select RED mode.
3. Hereinafter, use same manner as that of blue adjustment to adjust so that the red lines overlap with green lines.

4. Registration Data Writing

1. After each adjustment of green, blue, and red for the PAL-Wide mode finished, press “🔇 (MUTE)”+ “0” buttons on the commander to write registration data to the NVM.

<Copy of All Registration Data>

1. Make sure that the adjustment for PAL-Wide mode is finished and the data has been written.
2. Select the Projector Engine mode.
3. Select ALCP and set the data to “01”, and press “🔇 (MUTE)”+“-” buttons on the commander.
4. The data of PAL-Wide mode is copied to NTSC-Wide mode.



6-3. AUTO CONVERGENCE OFFSET

This adjustment must be performed after the registration adjustment was made or after readjustment was made by any reason.

1. Darken the periphery of this set.
2. Enter the PAL SPCB signal to set the PAL mode.
3. Set the screen format to “Wide”.
4. Select the Projector Engine mode.
5. Press “⊞ (AUTO CONVERGENCE)” button on the front panel of the set.
   (The offset value is now automatically stored)
6. Select “62 ERR” of Projector Engine mode.
   Confirm ERR is “00”. If ERR is not “00”, recheck. (Refer to 6-7.)
7. Exit the TT mode.
8. Enter the NTSC monoscope signal, and perform the same steps in the NTSC-Wide mode respectively.

6-4. WHITE BALANCE ADJUSTMENT

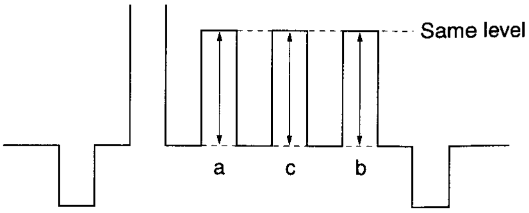
1. Enter the monoscope signal.
2. Press “MENU” button on the commander to enter the Picture Adjustment menu.
3. Set the Picture Mode to “Personal”, and the screen format to “Wide”.
4. Enter the Service menu (See Page 24), and select “Service”.
5. Adjust “Sub Bright” so that 10 IRE section barely glows.
6. Enter all-white pattern signal.
7. Fix “G-Cutoff” to “31”, and adjust “R-Cutoff” and “B-Cutoff” so as to attain the optimum white balance.
   Condition: All-White Pattern 20 IRE
8. Adjust “Sub Bright” so that 100 IRE section barely glows.
9. Adjust “R-Drive” and “B-Drive” so as to attain the optimum white balance.
10. Repeatedly adjust the white balance for the minimum and maximum picture setting.

6-5. SUB BRIGHT ADJUSTMENT

1. Enter the monoscope signal.
2. Press “MENU” button on the commander to enter the Picture Adjustment menu.
3. Set respective items as follows:
   - Picture Mode ▶ Personal
   - Contrast ▶ Minimum
   - Brightness ▶ 50%
4. Enter the Service menu (See Page 24), and select “Service”.
5. Adjust “Sub Bright” so that the border between 0 IRE and 10 IRE becomes distinct.
6. Add +6 step offset.

6-6. SUB COLOR ADJUSTMENT

1. Enter the color bar signal.
2. Connect the oscilloscope probe to the CN8511 pin 4 on the A board.
3. Enter the Service menu (See Page 24).
4. Select "Service".
5. Adjust "Sub Col" until Cyan, Magenta and Blue colour bars are of equal height as indicated below.



6-7. AUTO CONVERGENCE ERROR CODE LIST

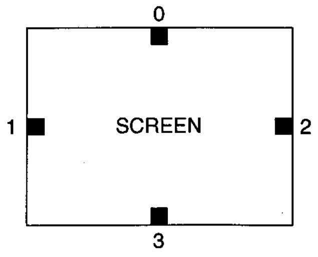
If an error code is displayed after the set has been fully adjusted, correctly, plese check the following items : position, tilt and sizing. If either of these adjustments are off, even slightly, the auto registration pattern will not hit the four sensors properly. This occurs when the internal generator patterns is being flashed on the screen for the sensor to read. Therefore, auto registration (called auto convergence) cannot operate properly causing an error code to be displayed. In order for this function to operate properly, correct position, tilt and size must be adjusted properly.

ERROR CODE LIST

ERROR CODE	DESCRIPTION	REMEDY
00	No Error	
10	Sensor 0 low output	Check sensor 0, connection/wiring, cicuit, and pattern position (is pattern over sensor ?) Adjust "64 VUP" if necessary.
11	Sensor 1 low output	Check sensor 1, connection/wiring, cicuit, and pattern position (is pattern over sensor ?) Adjust "69 HLE" if necessary.
12	Sensor 2 low output	Check sensor 2, connection/wiring, cicuit, and pattern position (is pattern over sensor ?) Adjust "73 HRIV" if necessary.
13	Sensor 3 low output	Check sensor 3, connection/wiring, cicuit, and pattern position (is pattern over sensor ?) Adjust "68 VLOW" if necessary.
20	Sensor 0 high output	Check sensor 0 and circuit.
21	Sensor 1 high output	Check sensor 1 and circuit.
22	Sensor 2 high output	Check sensor 2 and circuit.
23	Sensor 3 high output	Check sensor 3 and circuit.
30	V CENT or SKEW adjustment loop overflow	Check "66 VMID" data and check registration condition.
31	H CENT or SKEW adjustment loop overflow	Check "71 HMID" data and check registration condition.
32	H LIN or SIZE adjustment loop overflow	Check "71 HMID" data and check registration condition.
40	V CENT regi data overflow	Check "66 VMID" data and confirm V CENT data (all mode) is not near 511.
41	H CENT regi data overflow	Check "71 HMID" data and confirm H CENT data (all mode) is not near 511.
42	V SKEW regi data overflow	Check "66 VMID" data and confirm V SKEW data (all mode) is not near 511.
43	H SKEW regi data overflow	Check "71 HMID" data and confirm H SKEW data (all mode) is not near 511.
44	H LIN regi data overflow	Check "71 HMID" data and confirm H CENT data (all mode) is not near 511.
45	H SIZE regi data overflow	Check "71 HMID" data and confirm H CENT data (all mode) is not near 511.
50	V CENT regi data overdrow	Check "66 VMID" data and confirm V CENT data (all mode) is not near -512.
51	H CENT regi data overdrow	Check "71 HMID" data and confirm H CENT data (all mode) is not near -512.
52	V SKEW regi data overdrow	Check "66 VMID" data and confirm V SKEW data (all mode) is not near -512.
53	H SKEW regi data overdrow	Check "71 HMID" data and confirm H SKEW data (all mode) is not near -512.
54	H LIN regi data overdrow	Check "71 HMID" data and confirm H CENT data (all mode) is not near -512.
55	H SIZE regi data overdrow	Check "71 HMID" data and confirm H CENT data (all mode) is not near -512.
60	H or V CENT offset overflow	Check "71 HMID" data and check "66 VMID" data.
61	H or V SKEW offset overflow	Check SKEW adjustment.
62	H SIZE or LIN offset overflow	Check "71 HMID" data, check "66 VMID" data and check SIZE and LIN adjustment.
70	H or V CENT offset overdrow	Check "71 HMID" data and check "66 VMID" data.
71	H or V SKEW offset overdrow	Check SKEW adjustment.
72	H SIZE or LIN offset overdrow	Check "71 HMID" data, check "66 VMID" data and check SIZE and LIN adjustment.

[SENSOR POSITION]

0 : UPPER SENSOR
1 : LEFT SENSOR
2 : RIGHT SENSOR
3 : LOWER SENSOR



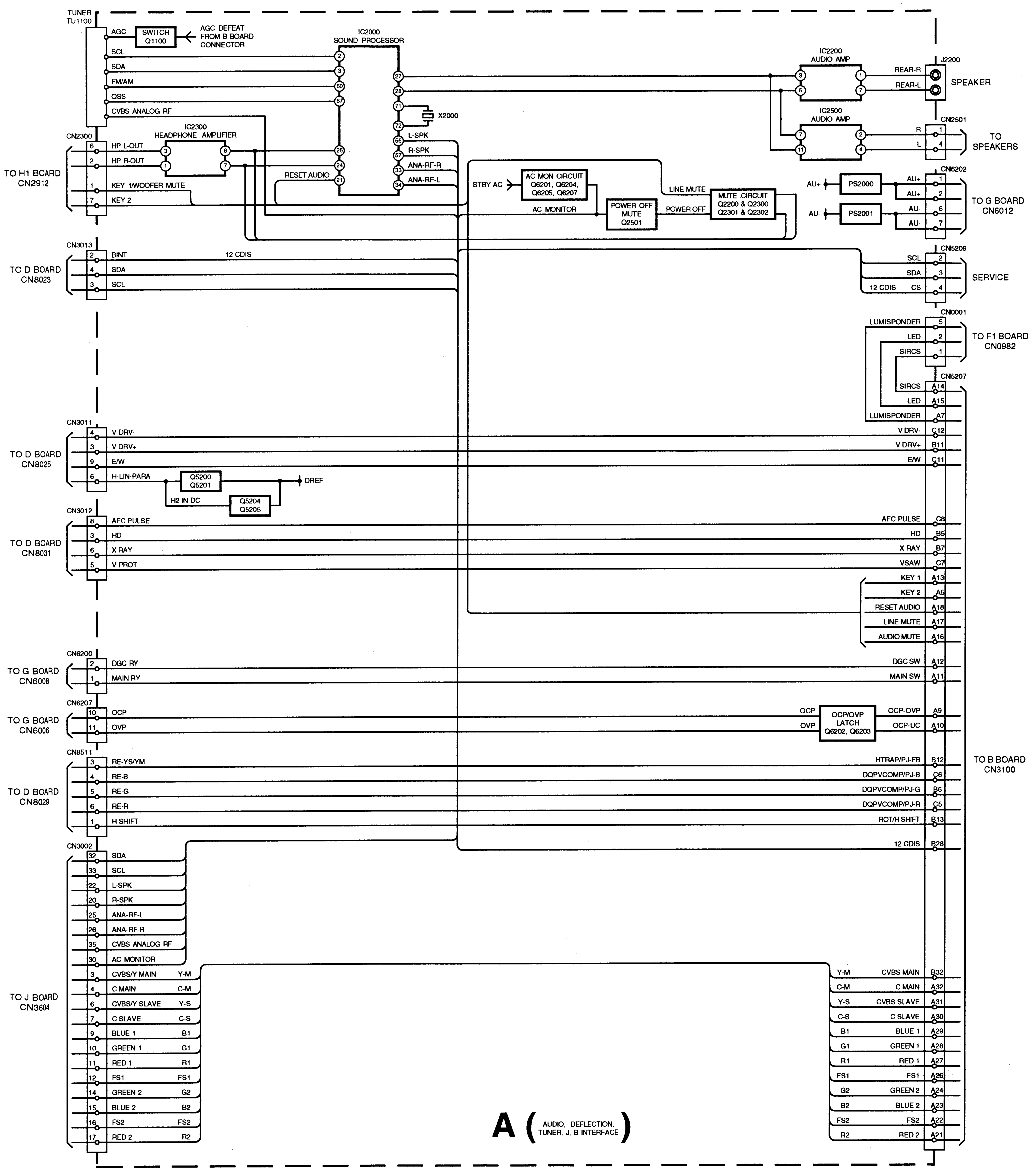
6-8. TEST-TEST MODE

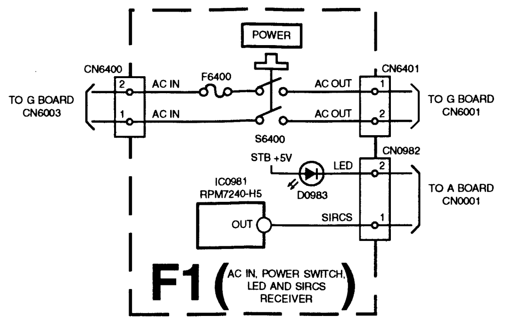
Is available by pressing "OSD", "5", "Volume minus", "TV" button in the standby mode, OSD "TT--" appears. The functions described below are available by pressing the two numbers. To release the Test-Test mode, Press "-" twice or switch the TV set into standby mode. Pressing the two PROGR (+ and –) buttons during Power ON will also switch into "TT" mode.
In "TT" mode, it is possible to remove the Menu from the screen by pressing the Speaker OFF button once. Pressing the Speaker OFF button a second time will cause the menu to reappear. The Function is kept even when the menu is not displayed !!.

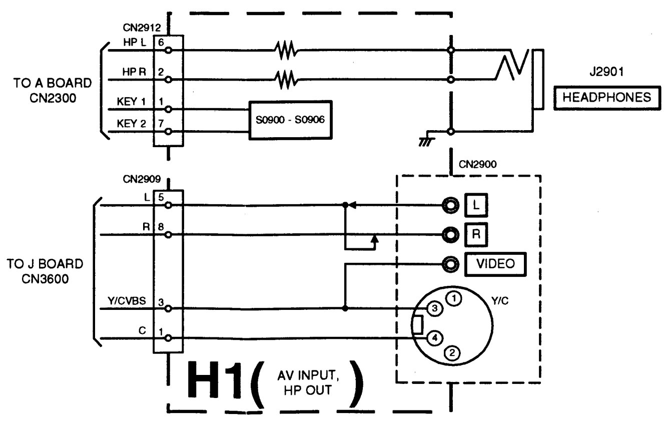
00	Switch back to normal mode - "TT" mode off
01	Set picture maximum
02	Set picture minimum
03	Set speaker/headphone Volume to 30%
04	Set speaker/headphone Volume to 50%
05	Set speaker/headphone Volume to 65%
06	Set speaker/headphone Volume to 80%
07	Ageing Mode
08	Shipping Condition
09	No function
10	No function
11	Sub picture adjustment
12	Sub colour adjustment
13	Sub brightness adjustment
14	Text H position adjustment
15	Rotation coil test
16	Picture level 50%
17	No function
18	No function
19	Factory Mode Enable/Disable
20	No function
21	Destination ADEKR
22	Destination BL
23	Destination ADEKR
24	Destination U
25	Destination ADEKR
26	Destination BL
27	Destination ADEKR
28	Destination ADEKR
30	No function
31	Auto Shutoff Disable/Enable
32	No function
33	No function
34	No function
35	CRT 4:3 <–> 16:9 ; Display TV status
36	Line 23 detection switch
37	Velocity Modulation (VM) test
38	No function
39	No function
40	No function

41	Reinitialize NVM
42	No function
43	Select Dual A sound
44	Select Dual B sound
45	Select Mono sound
46	Select Stereo sound
47	No function
48	Set NVM as non virgin
49	Set NVM as virgin
50	No function
51	No function
53	FM Overmodulation enable/disable
56	PJE Adjustment Menu
58	Select 3 scarts model
59	Select PIP
60 • 67	No function
68	Enable/Disable X26 countermeasure
73	Enable Zweiton D/K2 system (6.5/6.74)
74	Enable Zweiton D/K3 system (6.5/5.74)
78	Balance full left
79	Balance full right
87	Local keys test
89	No function
90	No function
91	Set 14:9 zoommode
92	Set SMART zoommode
93	Set 16:9 mode
94	Set ZOOM mode
96	No function
97	No function
98	No function
99	Display Error and Working Time menu

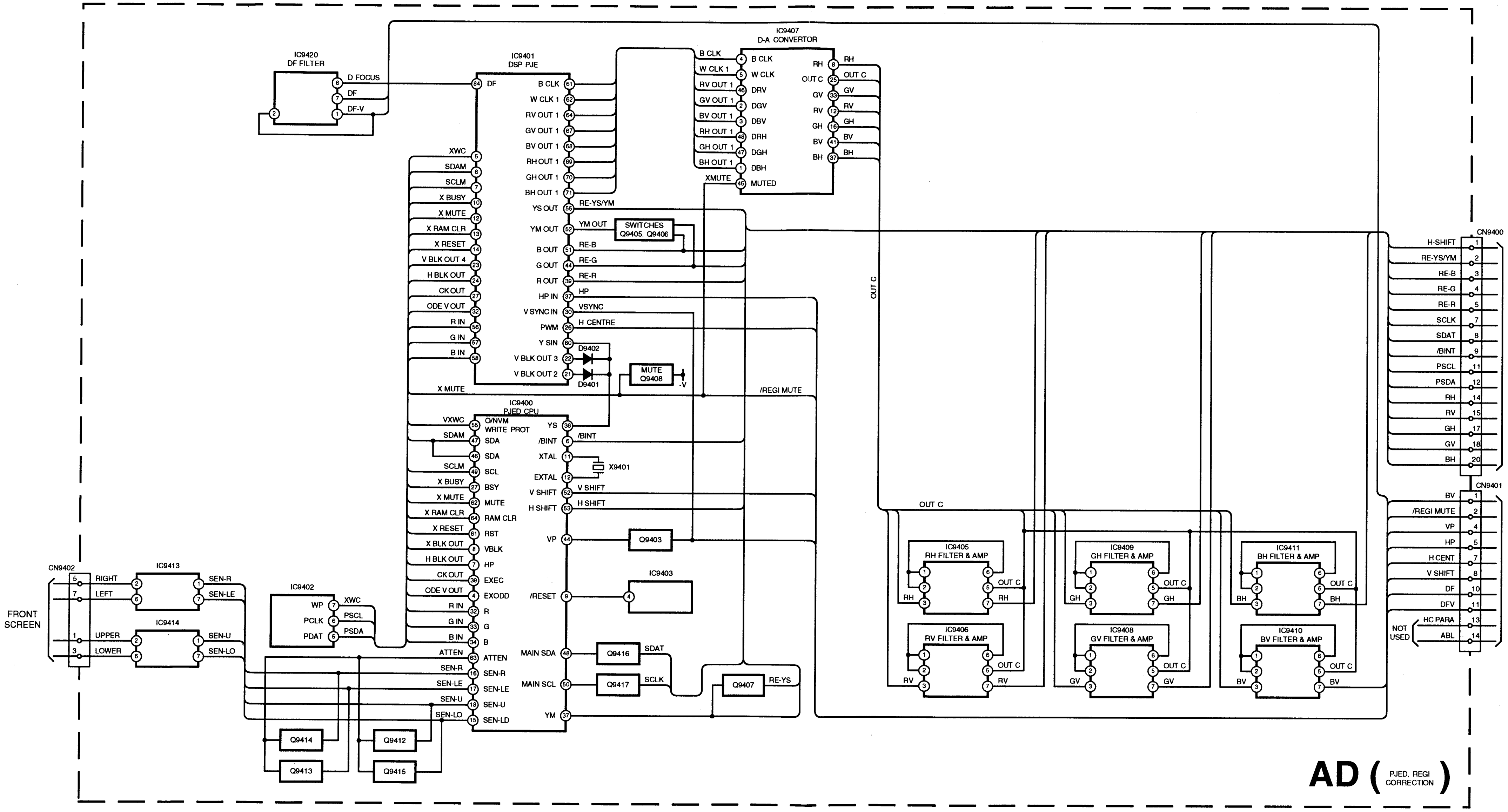
7-1. BLOCK DIAGRAMS (1)


TUNER TU1100
AGC
SWITCH Q1100
AGC DEFEAT FROM B BOARD CONNECTOR
SCL
SDA
FM/AM
QSS
CVBS ANALOG RF
IC2000 SOUND PROCESSOR
X2000
IC2200 AUDIO AMP
IC2500 AUDIO AMP
REAR-R
REAR-L
J2200
SPEAKER
CN2501
TO SPEAKERS
CN2300
IC2300 HEADPHONE AMPLIFIER
HP L-OUT
HP R-OUT
KEY 1/WOOFER MUTE
KEY 2
TO H1 BOARD CN2912
RESET AUDIO
L-SPK
R-SPK
ANA-RF-R
ANA-RF-L
STBY AC
AC MON CIRCUIT Q6201, Q6204, Q6205, Q6207
AC MONITOR
POWER OFF MUTE Q2501
POWER OFF
LINE MUTE
MUTE CIRCUIT Q2200 & Q2300 Q2301 & Q2302
AU+
AU-
PS2000
PS2001
CN6202
TO G BOARD CN6012
CN3013
BINT
12 CDIS
TO D BOARD CN8023
CN5209
SERVICE
CS
CN0001
LUMISPONDER
LED
SIRCS
TO F1 BOARD CN0982
CN5207
CN3011
V DRV-
V DRV+
E/W
H-LIN-PARA
Q5200 Q5201
H2 IN DC
Q5204 Q5205
DREF
TO D BOARD CN8025
CN3012
AFC PULSE
HD
X RAY
V PROT
VSAW
TO D BOARD CN8031
KEY 1
KEY 2
RESET AUDIO
LINE MUTE
AUDIO MUTE
CN6200
DGC RY
MAIN RY
DGC SW
MAIN SW
TO G BOARD CN6008
CN6207
OCP
OVP
OCP/OVP LATCH Q6202, Q6203
OCP-OVP
OCP-UC
TO G BOARD CN6006
CN8511
RE-YS/YM
RE-B
RE-G
RE-R
H SHIFT
HTRAP/PJ-FB
DQPVCOMP/PJ-B
DQPVCOMP/PJ-G
DQPVCOMP/PJ-R
ROT/H SHIFT
TO D BOARD CN8029
TO B BOARD CN3100
CN3002
AC MONITOR
CVBS/Y MAIN
C MAIN
CVBS/Y SLAVE
C SLAVE
BLUE 1
GREEN 1
RED 1
FS1
GREEN 2
BLUE 2
FS2
RED 2
CVBS MAIN
CVBS SLAVE
TO J BOARD CN3604
A (AUDIO, DEFLECTION, TUNER, J, B INTERFACE)


POWER
CN6400
TO G BOARD CN6003
AC IN
F6400
AC OUT
CN6401
TO G BOARD CN6001
S6400
STB +5V
LED
D0983
CN0982
IC0981 RPM7240-H5
OUT
SIRCS
TO A BOARD CN0001
F1 (AC IN, POWER SWITCH, LED AND SIRCS RECEIVER)

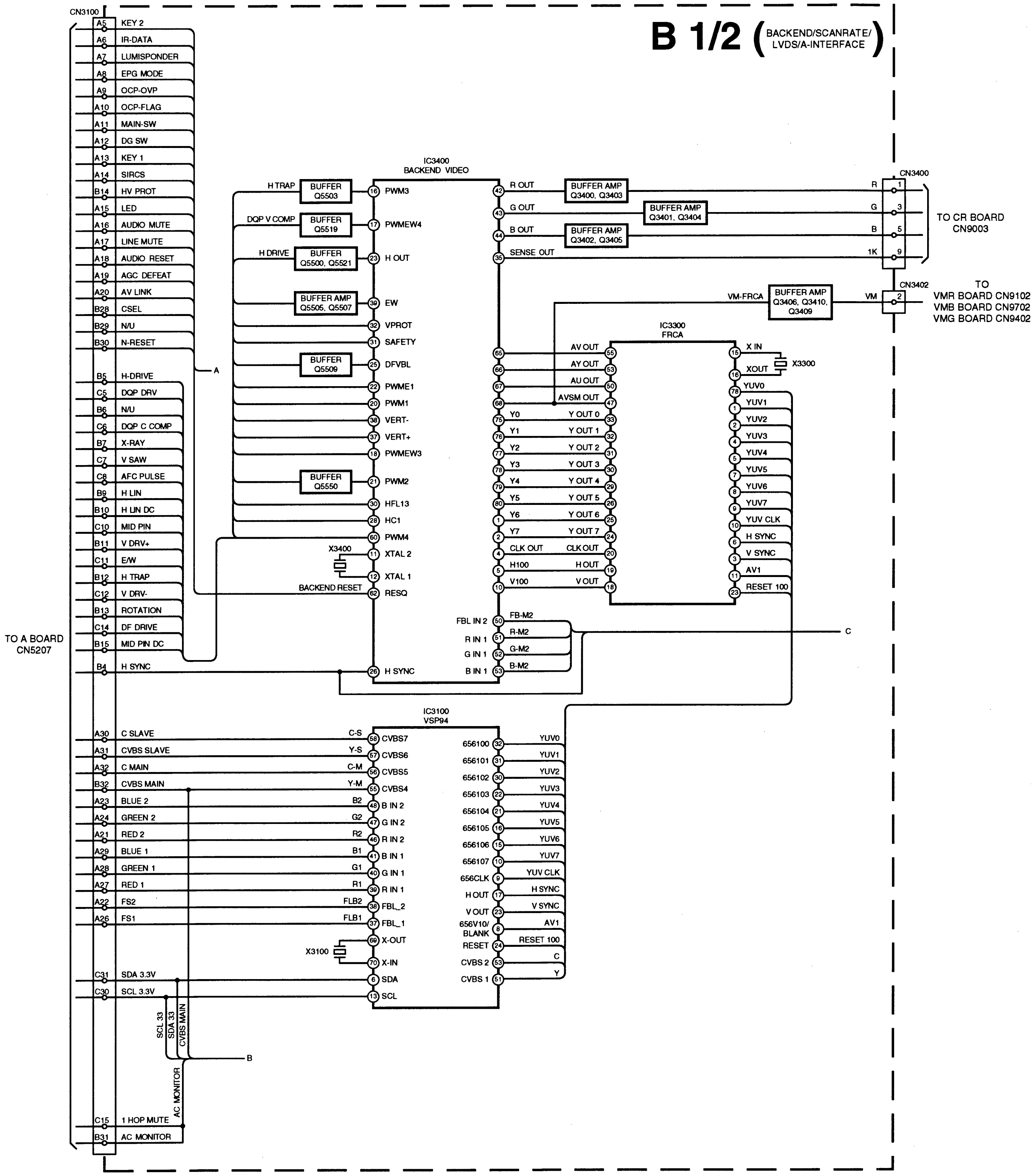

CN2912
HP L
HP R
KEY 1
KEY 2
TO A BOARD CN2300
S0900 - S0906
J2901
HEADPHONES
CN2900
CN2909
L
R
VIDEO
Y/CVBS
C
Y/C
TO J BOARD CN3600
H1 (AV INPUT, HP OUT)

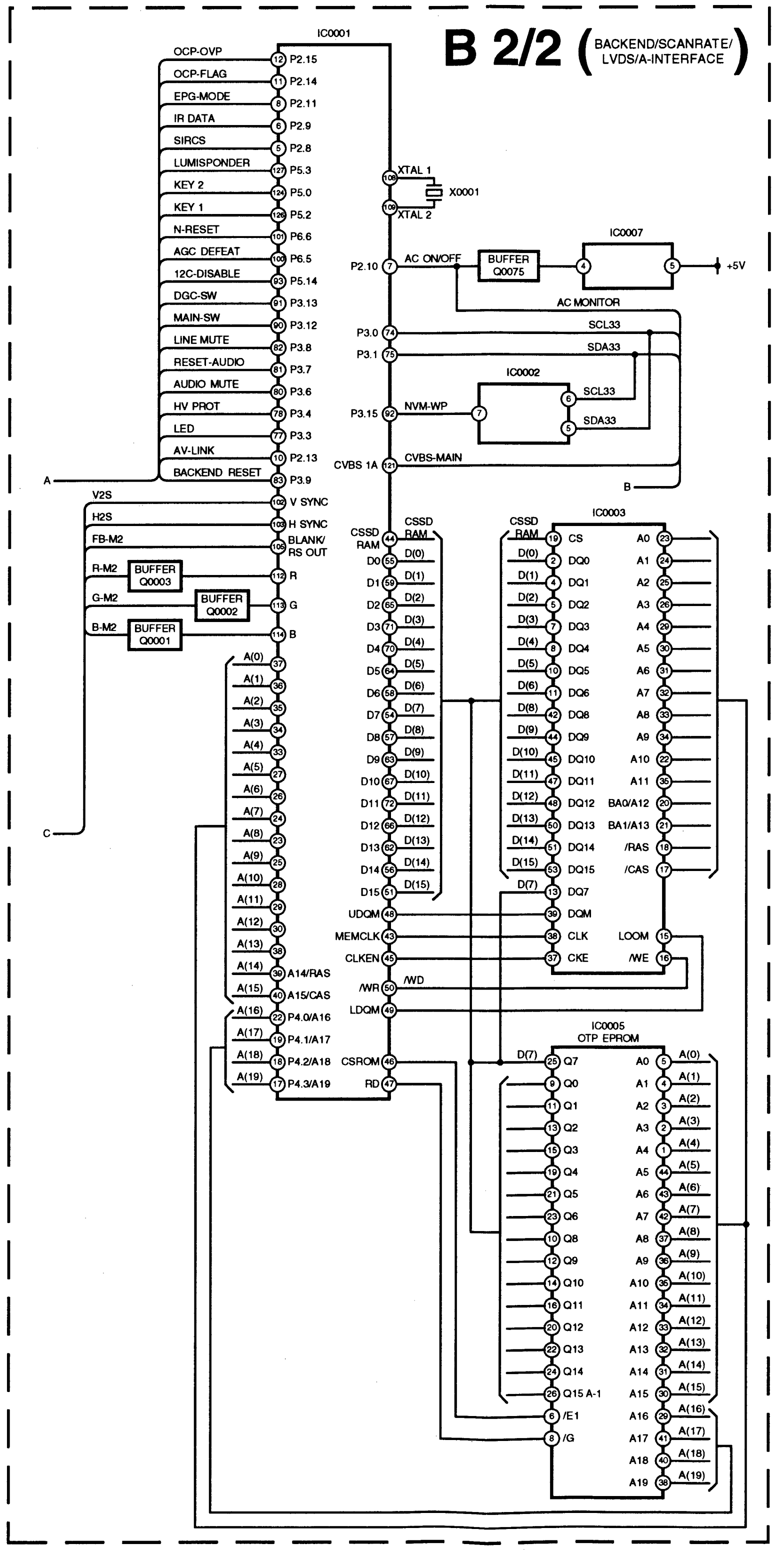
7-1. BLOCK DIAGRAMS (2)



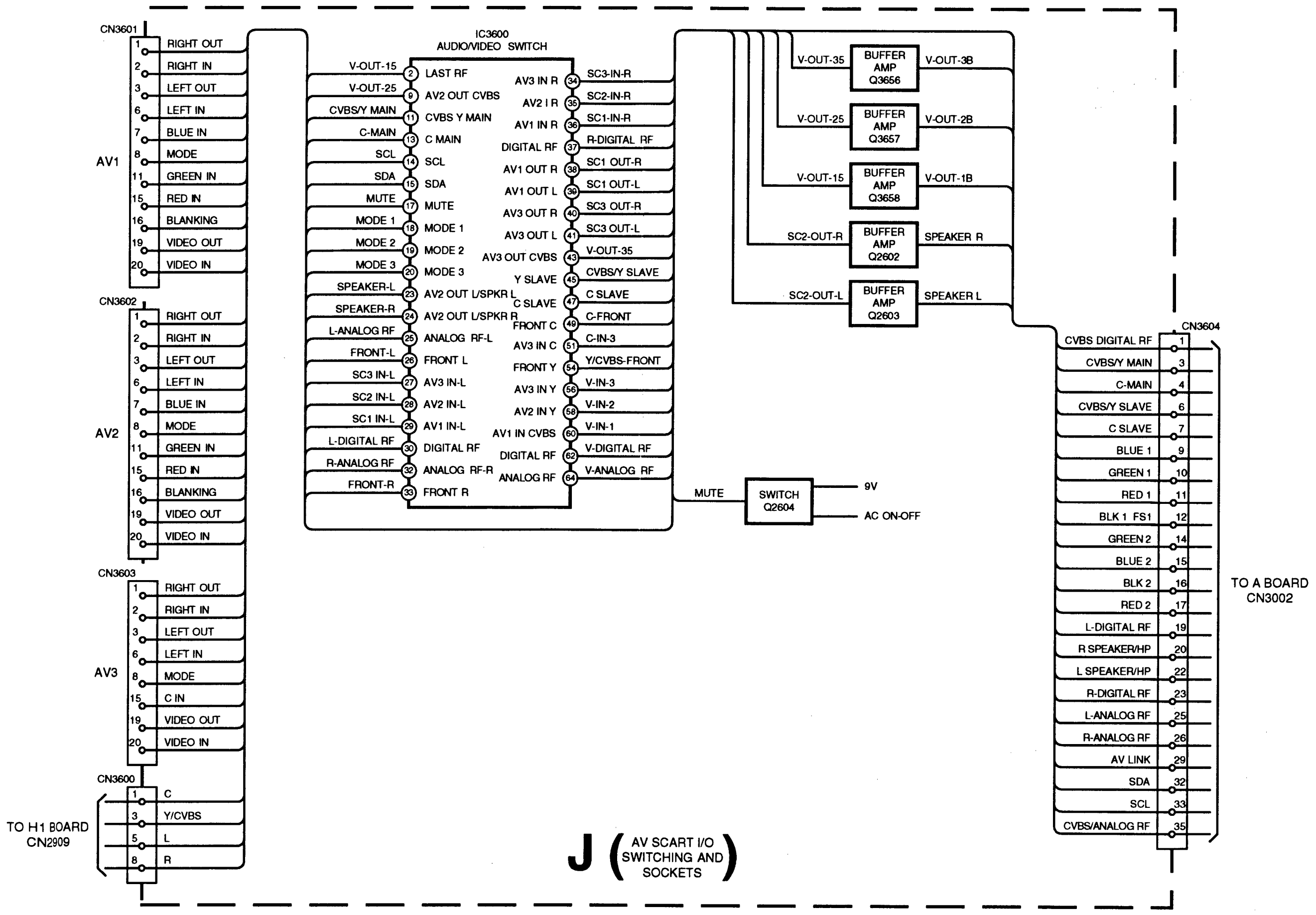
IC9420 DF FILTER
D FOCUS
DF
DF-V
IC9401 DSP PJE
B CLK
W CLK 1
RV OUT 1
GV OUT 1
BV OUT 1
RH OUT 1
GH OUT 1
BH OUT 1
YS OUT
YM OUT
B OUT
G OUT
R OUT
HP IN
V SYNC IN
PWM
Y SIN
V BLK OUT 3
V BLK OUT 2
XWC
SDAM
SCLM
X BUSY
X MUTE
X RAM CLR
X RESET
V BLK OUT 4
H BLK OUT
CK OUT
ODE V OUT
R IN
G IN
B IN
RE-YS/YM
YM OUT
SWITCHES Q9405, Q9406
RE-B
RE-G
RE-R
HP
VSYNC
H CENTRE
D9402
D9401
MUTE Q9408
-V
/REGI MUTE
IC9407 D-A CONVERTOR
B CLK
W CLK
DRV
DGV
DBV
DRH
DGH
DBH
MUTED
XMUTE
RH
OUT C
GV
RV
GH
BV
BH
IC9400 PJED CPU
VXWC
O/NVM WRITE PROT
SDA
SCL
BSY
MUTE
RAM CLR
RST
VBLK
EXEC
EXODD
R
G
B
ATTEN
SEN-R
SEN-LE
SEN-U
SEN-LD
SEN-LO
YS
/BINT
XTAL
EXTAL
X9401
V SHIFT
H SHIFT
VP
/RESET
MAIN SDA
MAIN SCL
YM
Q9403
IC9403
Q9416
Q9417
SDAT
SCLK
Q9407
RE-YS
IC9402
WP
PCLK
PDAT
PSCL
PSDA
Q9414
Q9412
Q9413
Q9415
CN9402
RIGHT
LEFT
UPPER
LOWER
FRONT SCREEN
IC9413
IC9414
SEN-R
SEN-LE
SEN-U
SEN-LO
IC9405 RH FILTER & AMP
IC9406 RV FILTER & AMP
IC9409 GH FILTER & AMP
IC9408 GV FILTER & AMP
IC9411 BH FILTER & AMP
IC9410 BV FILTER & AMP
OUT C
CN9400
H-SHIFT
RE-YS/YM
RE-B
RE-G
RE-R
SCLK
SDAT
/BINT
PSCL
PSDA
RH
RV
GH
GV
BH
TO D BOARD CN8026
CN9401
BV
/REGI MUTE
VP
HP
H CENT
V SHIFT
DF
DFV
HC PARA
ABL
NOT USED
TO D BOARD CN8027
AD (PJED, REGI CORRECTION)

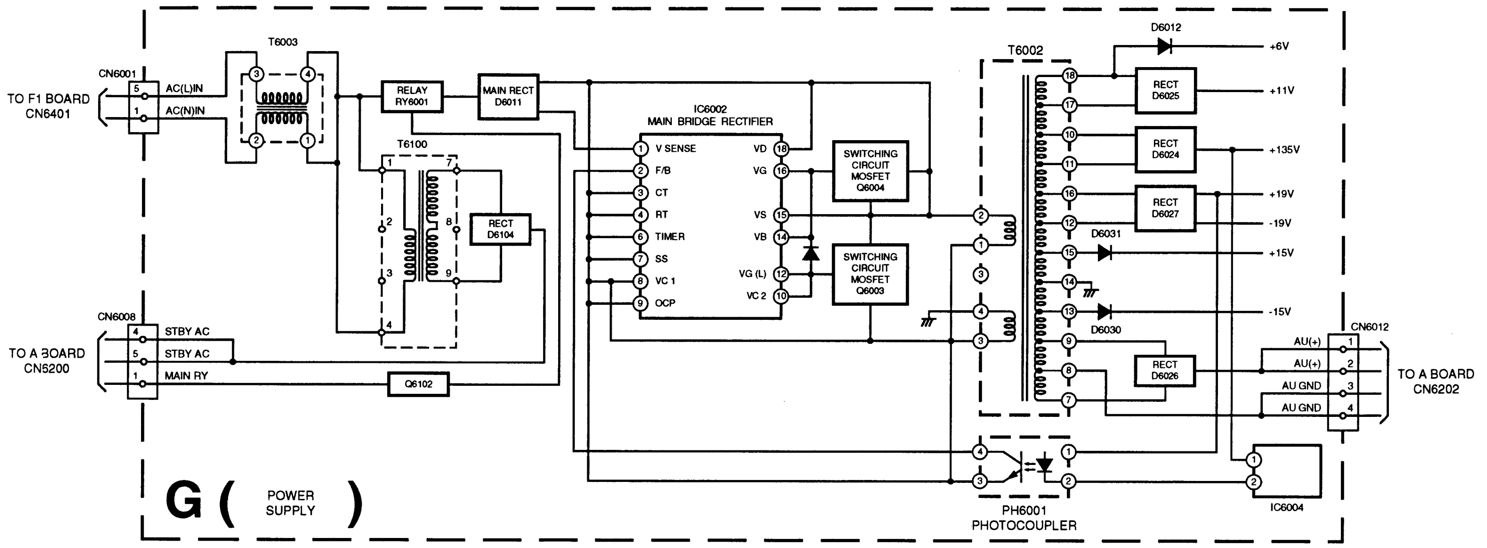
7-1. BLOCK DIAGRAMS (3)


B 1/2 (BACKEND/SCANRATE/ LVDS/A-INTERFACE)
CN3100
KEY 2
IR-DATA
LUMISPONDER
EPG MODE
OCP-OVP
OCP-FLAG
MAIN-SW
DG SW
KEY 1
SIRCS
HV PROT
LED
AUDIO MUTE
LINE MUTE
AUDIO RESET
AGC DEFEAT
AV LINK
CSEL
N/U
N-RESET
H-DRIVE
DQP DRV
DQP C COMP
X-RAY
V SAW
AFC PULSE
H LIN
H LIN DC
MID PIN
V DRV+
E/W
H TRAP
V DRV-
ROTATION
DF DRIVE
MID PIN DC
H SYNC
TO A BOARD CN5207
IC3400 BACKEND VIDEO
BUFFER Q5503
BUFFER Q5519
BUFFER Q5500, Q5521
BUFFER AMP Q5505, Q5507
BUFFER Q5509
BUFFER Q5550
X3400
BACKEND RESET
BUFFER AMP Q3400, Q3403
BUFFER AMP Q3401, Q3404
BUFFER AMP Q3402, Q3405
BUFFER AMP Q3406, Q3410, Q3409
CN3400
TO CR BOARD CN9003
CN3402
TO VMR BOARD CN9102 VMB BOARD CN9702 VMG BOARD CN9402
IC3300 FRCA
X3300
IC3100 VSP94
X3100
C SLAVE
CVBS SLAVE
C MAIN
CVBS MAIN
BLUE 2
GREEN 2
RED 2
BLUE 1
GREEN 1
RED 1
FS2
FS1
SDA 3.3V
SCL 3.3V
SCL 33
SDA 33
CVBS MAIN
AC MONITOR
1 HOP MUTE
AC MONITOR

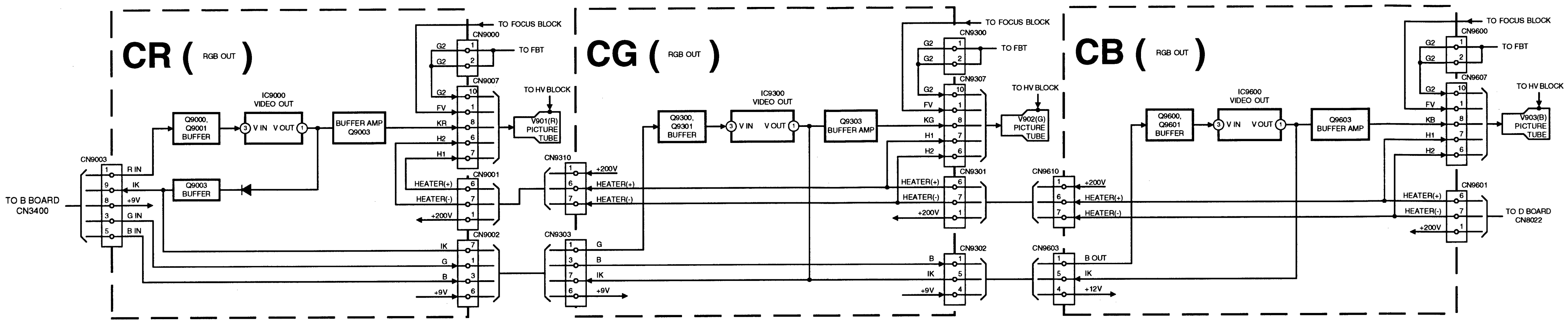

B 2/2 (BACKEND/SCANRATE/ LVDS/A-INTERFACE)
IC0001
X0001
IC0007
BUFFER Q0075
AC ON/OFF
AC MONITOR
+5V
SCL33
SDA33
IC0002
NVM-WP
CVBS-MAIN
BUFFER Q0003
BUFFER Q0002
BUFFER Q0001
IC0003
CSSD RAM
IC0005 OTP EPROM

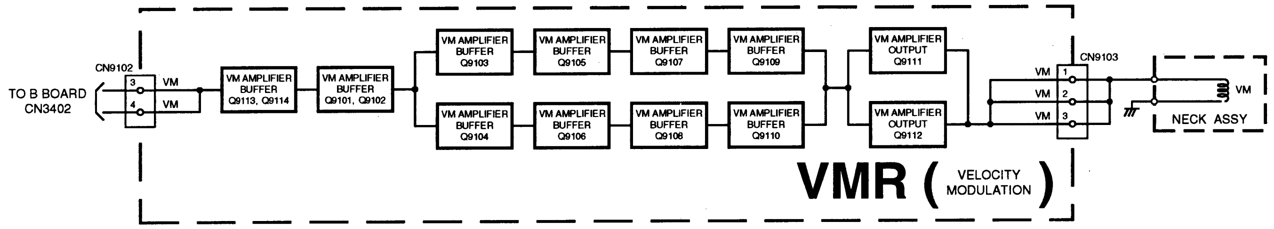
7-1. BLOCK DIAGRAMS (4)

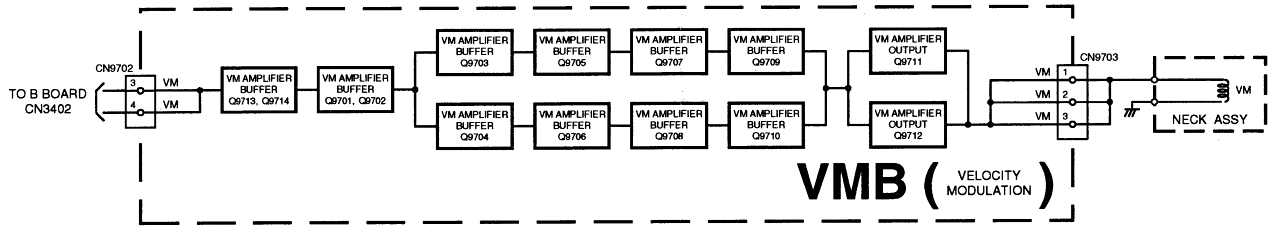

CN3601
AV1
RIGHT OUT
RIGHT IN
LEFT OUT
LEFT IN
BLUE IN
MODE
GREEN IN
RED IN
BLANKING
VIDEO OUT
VIDEO IN
CN3602
AV2
RIGHT OUT
RIGHT IN
LEFT OUT
LEFT IN
BLUE IN
MODE
GREEN IN
RED IN
BLANKING
VIDEO OUT
VIDEO IN
CN3603
AV3
RIGHT OUT
RIGHT IN
LEFT OUT
LEFT IN
MODE
C IN
VIDEO OUT
VIDEO IN
CN3600
TO H1 BOARD
CN2609
C
Y/CVBS
L
R
IC3600
AUDIO/VIDEO SWITCH
V-OUT-15
V-OUT-25
CVBS/Y MAIN
C-MAIN
SCL
SDA
MUTE
MODE 1
MODE 2
MODE 3
SPEAKER-L
SPEAKER-R
L-ANALOG RF
FRONT-L
SC3 IN-L
SC2 IN-L
SC1 IN-L
L-DIGITAL RF
R-ANALOG RF
FRONT-R
LAST RF
AV2 OUT CVBS
CVBS Y MAIN
C MAIN
SCL
SDA
MUTE
MODE 1
MODE 2
MODE 3
AV2 OUT L/SPKR L
AV2 OUT L/SPKR R
ANALOG RF-L
FRONT L
AV3 IN-L
AV2 IN-L
AV1 IN-L
DIGITAL RF
ANALOG RF-R
FRONT R
AV3 IN R
AV2 I R
AV1 IN R
DIGITAL RF
AV1 OUT R
AV1 OUT L
AV3 OUT R
AV3 OUT L
AV3 OUT CVBS
Y SLAVE
C SLAVE
FRONT C
AV3 IN C
FRONT Y
AV3 IN Y
AV2 IN Y
AV1 IN CVBS
DIGITAL RF
ANALOG RF
SC3-IN-R
SC2-IN-R
SC1-IN-R
R-DIGITAL RF
SC1 OUT-R
SC1 OUT-L
SC3 OUT-R
SC3 OUT-L
V-OUT-35
CVBS/Y SLAVE
C SLAVE
C-FRONT
C-IN-3
Y/CVBS-FRONT
V-IN-3
V-IN-2
V-IN-1
V-DIGITAL RF
V-ANALOG RF
V-OUT-35
BUFFER AMP Q3656
V-OUT-3B
V-OUT-25
BUFFER AMP Q3657
V-OUT-2B
V-OUT-15
BUFFER AMP Q3658
V-OUT-1B
SC2-OUT-R
BUFFER AMP Q2602
SPEAKER R
SC2-OUT-L
BUFFER AMP Q2603
SPEAKER L
MUTE
SWITCH Q2604
9V
AC ON-OFF
CN3604
CVBS DIGITAL RF
CVBS/Y MAIN
C-MAIN
CVBS/Y SLAVE
C SLAVE
BLUE 1
GREEN 1
RED 1
BLK 1 FS1
GREEN 2
BLUE 2
BLK 2
RED 2
L-DIGITAL RF
R SPEAKER/HP
L SPEAKER/HP
R-DIGITAL RF
L-ANALOG RF
R-ANALOG RF
AV LINK
SDA
SCL
CVBS/ANALOG RF
TO A BOARD
CN3002
J
AV SCART I/O SWITCHING AND SOCKETS

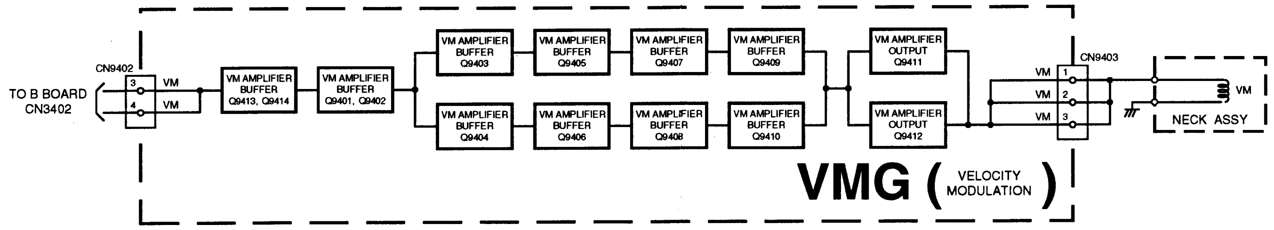

TO F1 BOARD
CN6401
CN6001
AC(L)IN
AC(N)IN
T6003
RELAY RY6001
MAIN RECT D6011
T6100
RECT D6104
TO A BOARD
CN5200
CN6008
STBY AC
STBY AC
MAIN RY
Q6102
IC6002
MAIN BRIDGE RECTIFIER
V SENSE
F/B
CT
RT
TIMER
SS
VC 1
OCP
VD
VG
VS
VB
VG (L)
VC 2
SWITCHING CIRCUIT MOSFET Q6004
SWITCHING CIRCUIT MOSFET Q6003
T6002
D6012
+6V
RECT D6025
+11V
RECT D6024
+135V
RECT D6027
+19V
-19V
D6031
+15V
D6030
-15V
RECT D6026
CN6012
AU(+)
AU(+)
AU GND
AU GND
TO A BOARD
CN6202
PH6001
PHOTOCOUPLER
IC6004
G
POWER SUPPLY

7-1. BLOCK DIAGRAMS (5)

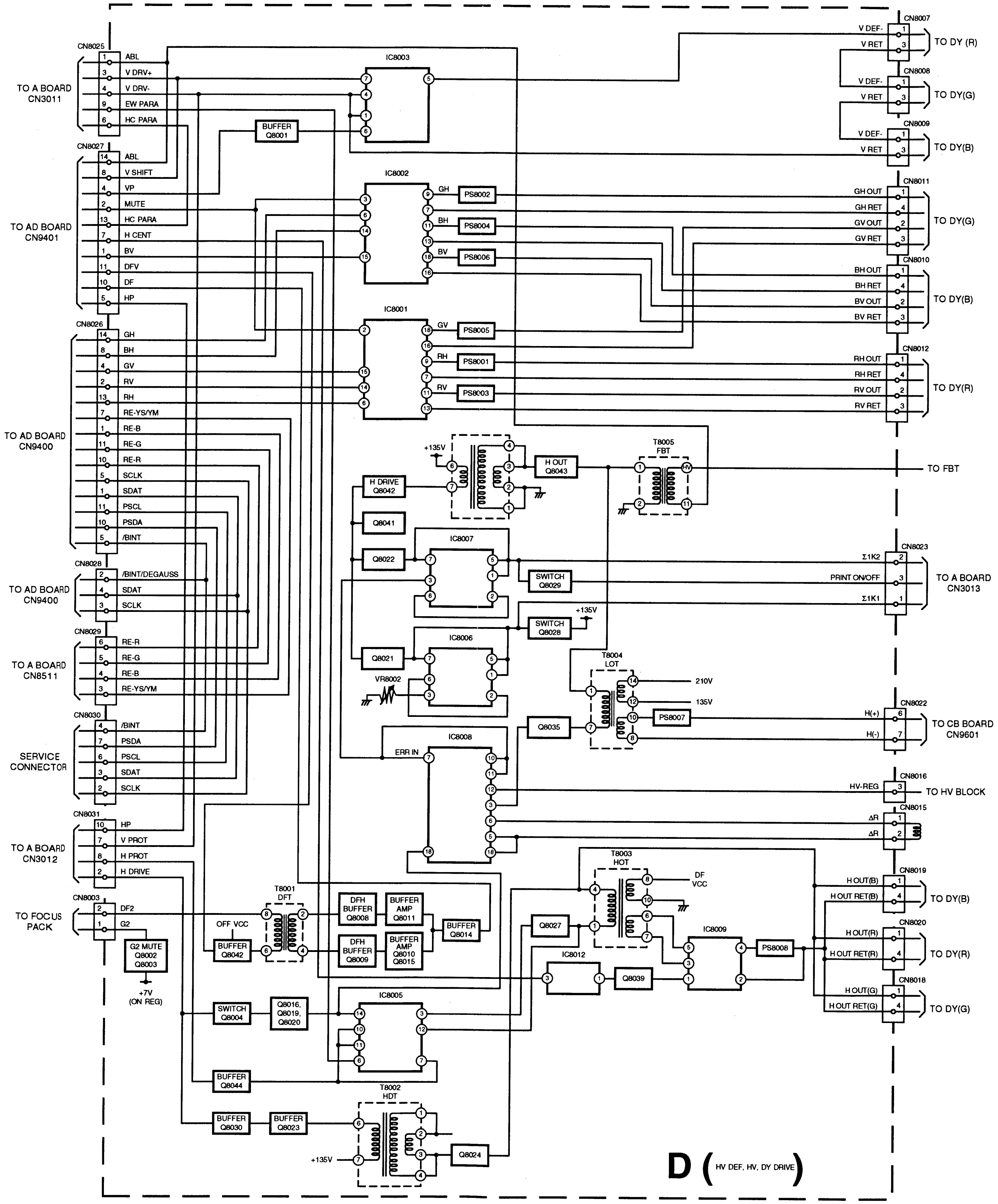

CR (RGB OUT)
TO B BOARD CN3400
CN9003
1 R IN
9 IK
8 +9V
3 G IN
5 B IN
Q9000, Q9001 BUFFER
IC9000 VIDEO OUT
3 V IN
V OUT 1
BUFFER AMP Q9003
Q9003 BUFFER
TO FOCUS BLOCK
CN9000
G2 1
G2 2
TO FBT
CN9007
G2 10
FV 1
KR 8
H2 6
H1 7
TO HV BLOCK
V901(R) PICTURE TUBE
CN9001
HEATER(+) 6
HEATER(-) 7
+200V 1
CN9002
IK 7
G 1
B 3
+9V 6
CG (RGB OUT)
CN9310
1 +200V
6 HEATER(+)
7 HEATER(-)
CN9303
1 G
3 B
7 IK
6 +9V
Q9300, Q9301 BUFFER
IC9300 VIDEO OUT
3 V IN
V OUT 1
Q9303 BUFFER AMP
TO FOCUS BLOCK
CN9300
G2 1
G2 2
TO FBT
CN9307
G2 10
FV 1
KG 8
H1 7
H2 6
TO HV BLOCK
V902(G) PICTURE TUBE
CN9301
HEATER(+) 6
HEATER(-) 7
+200V 1
CN9302
B 1
IK 5
+9V 4
CB (RGB OUT)
CN9610
1 +200V
6 HEATER(+)
7 HEATER(-)
CN9603
1 B OUT
5 IK
4 +12V
Q9600, Q9601 BUFFER
IC9600 VIDEO OUT
3 V IN
V OUT 1
Q9603 BUFFER AMP
TO FOCUS BLOCK
CN9600
G2 1
G2 2
TO FBT
CN9607
G2 10
FV 1
KB 8
H1 7
H2 6
TO HV BLOCK
V903(B) PICTURE TUBE
CN9601
HEATER(+) 6
HEATER(-) 7
+200V 1
TO D BOARD CN8022


TO B BOARD CN3402
CN9102
3 VM
4 VM
VM AMPLIFIER BUFFER Q9113, Q9114
VM AMPLIFIER BUFFER Q9101, Q9102
VM AMPLIFIER BUFFER Q9103
VM AMPLIFIER BUFFER Q9105
VM AMPLIFIER BUFFER Q9107
VM AMPLIFIER BUFFER Q9109
VM AMPLIFIER BUFFER Q9104
VM AMPLIFIER BUFFER Q9106
VM AMPLIFIER BUFFER Q9108
VM AMPLIFIER BUFFER Q9110
VM AMPLIFIER OUTPUT Q9111
VM AMPLIFIER OUTPUT Q9112
CN9103
VM 1
VM 2
VM 3
VM
NECK ASSY
VMR (VELOCITY MODULATION)

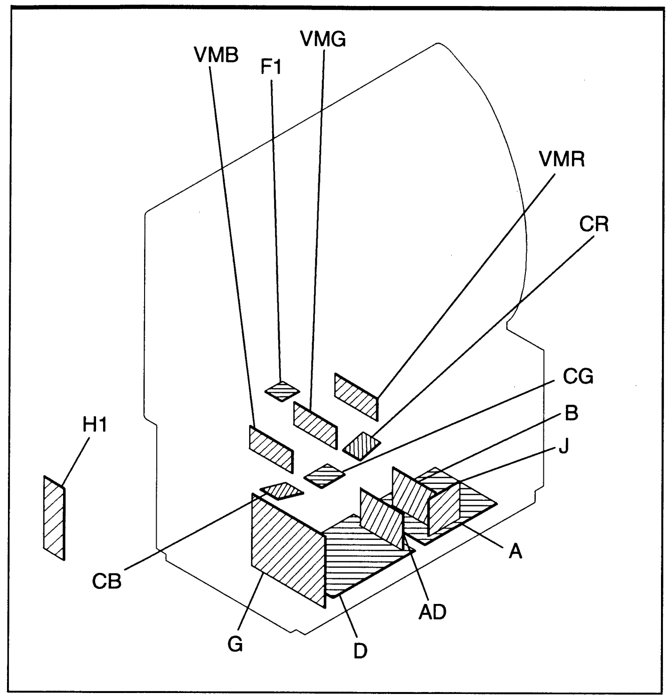

TO B BOARD CN3402
CN9702
3 VM
4 VM
VM AMPLIFIER BUFFER Q9713, Q9714
VM AMPLIFIER BUFFER Q9701, Q9702
VM AMPLIFIER BUFFER Q9703
VM AMPLIFIER BUFFER Q9705
VM AMPLIFIER BUFFER Q9707
VM AMPLIFIER BUFFER Q9709
VM AMPLIFIER BUFFER Q9704
VM AMPLIFIER BUFFER Q9706
VM AMPLIFIER BUFFER Q9708
VM AMPLIFIER BUFFER Q9710
VM AMPLIFIER OUTPUT Q9711
VM AMPLIFIER OUTPUT Q9712
CN9703
VM 1
VM 2
VM 3
VM
NECK ASSY
VMB (VELOCITY MODULATION)


TO B BOARD CN3402
CN9402
3 VM
4 VM
VM AMPLIFIER BUFFER Q9413, Q9414
VM AMPLIFIER BUFFER Q9401, Q9402
VM AMPLIFIER BUFFER Q9403
VM AMPLIFIER BUFFER Q9405
VM AMPLIFIER BUFFER Q9407
VM AMPLIFIER BUFFER Q9409
VM AMPLIFIER BUFFER Q9404
VM AMPLIFIER BUFFER Q9406
VM AMPLIFIER BUFFER Q9408
VM AMPLIFIER BUFFER Q9410
VM AMPLIFIER OUTPUT Q9411
VM AMPLIFIER OUTPUT Q9412
CN9403
VM 1
VM 2
VM 3
VM
NECK ASSY
VMG (VELOCITY MODULATION)

7-1. BLOCK DIAGRAMS (6)


CN8025
TO A BOARD CN3011
ABL
V DRV+
V DRV-
EW PARA
HC PARA
CN8027
TO AD BOARD CN9401
V SHIFT
VP
MUTE
HC PARA
H CENT
BV
DFV
DF
HP
CN8026
TO AD BOARD CN9400
GH
BH
GV
RV
RH
RE-YS/YM
RE-B
RE-G
RE-R
SCLK
SDAT
PSCL
PSDA
/BINT
CN8028
TO AD BOARD CN9400
/BINT/DEGAUSS
SDAT
SCLK
CN8029
TO A BOARD CN8511
RE-R
RE-G
RE-B
RE-YS/YM
CN8030
SERVICE CONNECTOR
/BINT
PSDA
PSCL
SDAT
SCLK
CN8031
TO A BOARD CN3012
HP
V PROT
H PROT
H DRIVE
CN8003
TO FOCUS PACK
DF2
G2
G2 MUTE Q8002 Q8003
+7V (ON REG)
IC8003
BUFFER Q8001
IC8002
PS8002
PS8004
PS8006
IC8001
PS8005
PS8001
PS8003
+135V
H DRIVE Q8042
H OUT Q8043
T8005 FBT
Q8041
Q8022
IC8007
SWITCH Q8029
SWITCH Q8028
Q8021
IC8006
VR8002
T8004 LOT
210V
135V
PS8007
Q8035
IC8008
ERR IN
T8003 HOT
DF VCC
Q8027
IC8009
PS8008
IC8012
Q8039
T8001 DFT
OFF VCC
BUFFER Q8042
DFH BUFFER Q8008
DFH BUFFER Q8009
BUFFER AMP Q8011
BUFFER AMP Q8010 Q8015
BUFFER Q8014
SWITCH Q8004
Q8016, Q8019, Q8020
IC8005
BUFFER Q8044
BUFFER Q8030
BUFFER Q8023
T8002 HDT
Q8024
CN8007
V DEF-
V RET
TO DY (R)
CN8008
TO DY(G)
CN8009
TO DY(B)
CN8011
GH OUT
GH RET
GV OUT
GV RET
TO DY(G)
CN8010
BH OUT
BH RET
BV OUT
BV RET
TO DY(B)
CN8012
RH OUT
RH RET
RV OUT
RV RET
TO DY(R)
TO FBT
CN8023
Σ1K2
PRINT ON/OFF
Σ1K1
TO A BOARD CN3013
CN8022
H(+)
H(-)
TO CB BOARD CN9601
CN8016
HV-REG
TO HV BLOCK
CN8015
ΔR
CN8019
H OUT(B)
H OUT RET(B)
TO DY(B)
CN8020
H OUT(R)
H OUT RET(R)
TO DY(R)
CN8018
H OUT(G)
H OUT RET(G)
TO DY(G)
D (HV DEF, HV, DY DRIVE)

7-2. CIRCUIT BOARD LOCATION


VMB
VMG
F1
VMR
CR
CG
B
J
H1
CB
G
D
AD
A

Reference Information

RESISTOR	RN	: METAL FILM
	RC	: SOLID
	FPRD	: NON FLAMMABLE CARBON
	FUSE	: NON FLAMMABLE FUSIBLE
	RS	: NON FLAMMABLE METAL OXIDE
	RB	: NON FLAMMABLE CEMENT
	RW	: NON FLAMMABLE WIREWOUND
	⋇	: ADJUSTMENT RESISTOR
COIL	LF-8L	: MICRO INDUCTOR
CAPACITOR	TA	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

7-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :

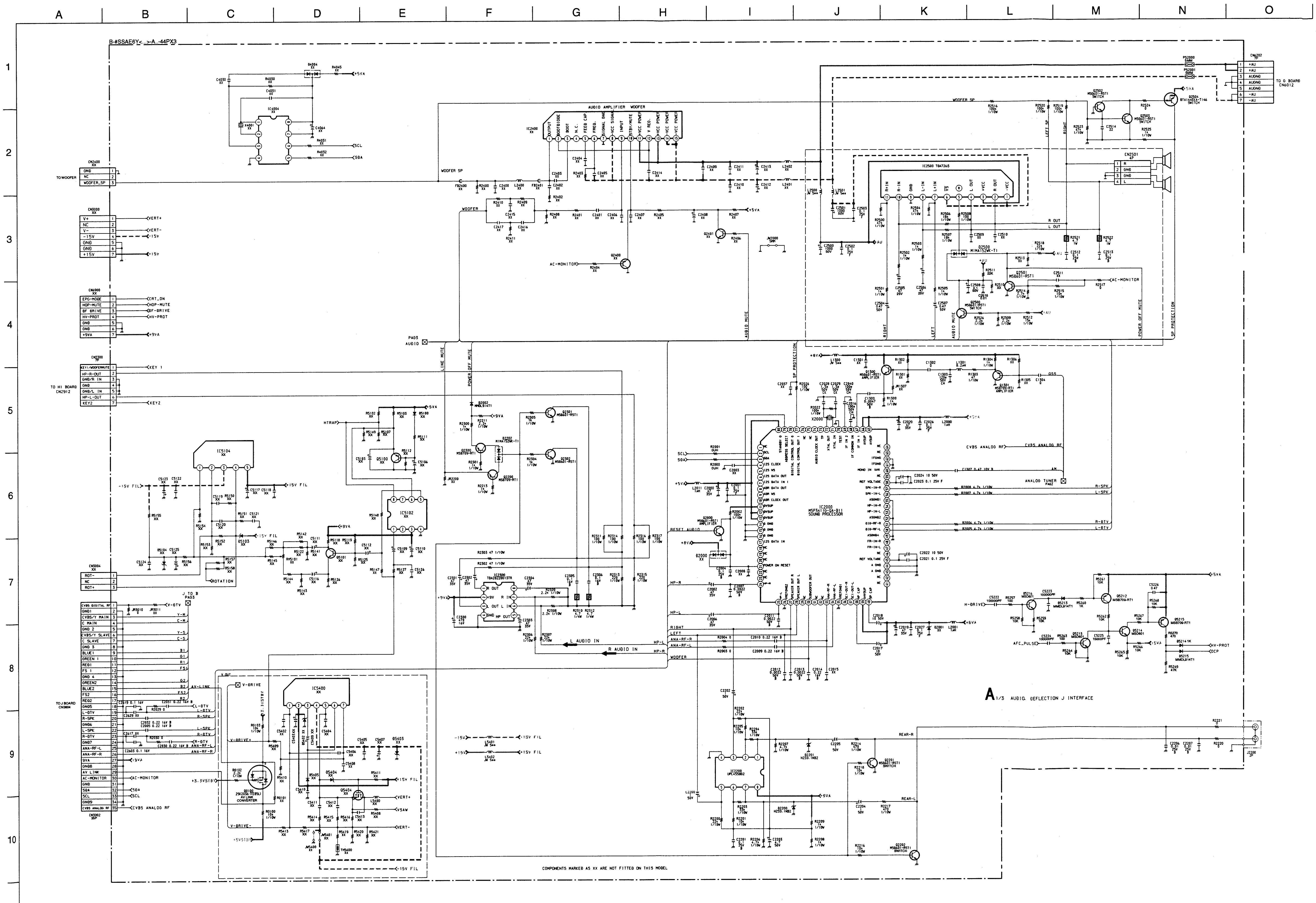
- All capacitors are in µF unless otherwise noted.
- pF : µµF 50WV or less are not indicated except for electrolytic types.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5mm
Electrical power rating : 1/4W

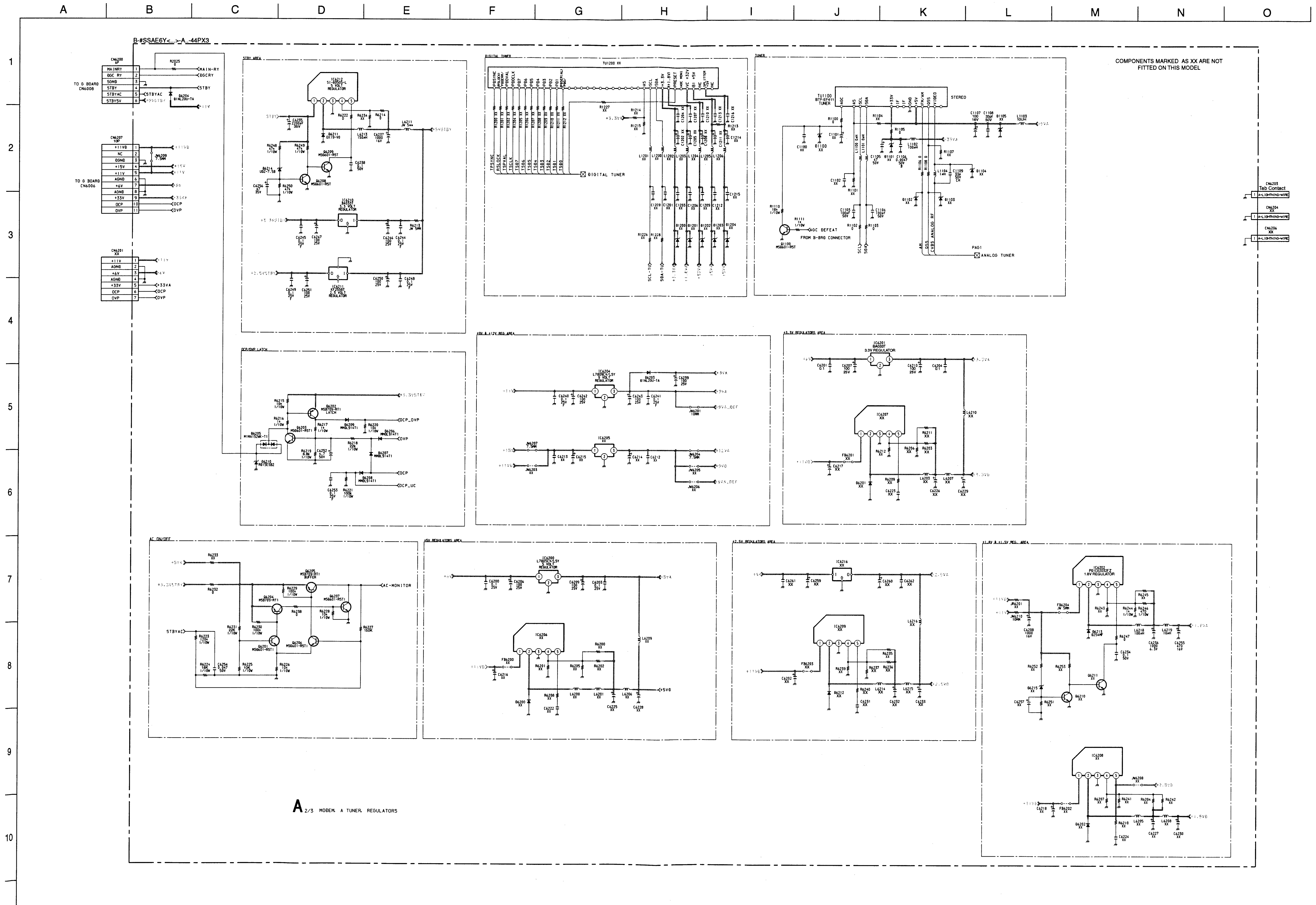
- Chip resistors are 1/10W
- All resistors are in ohms.
  k = 1000 ohms, M = 1000,000 ohms
- ▭ : nonflammable resistor.
- ▭ : fusible resistor.
- △ : internal component.
- ▭ : panel designation or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltages are in Volts.
- Readings are taken with a 10Mohm digital mutimeter.
- Readings are taken with a color bar input signal.
- Voltage variations may be noted due to normal production tolerences.
- ▬ : B + bus.
- ■ ■ ■ : B - bus.
- ⇨ : RF signal path.
- ⊥ : earth - ground.
- ⏚ : earth - chassis.

Note : The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

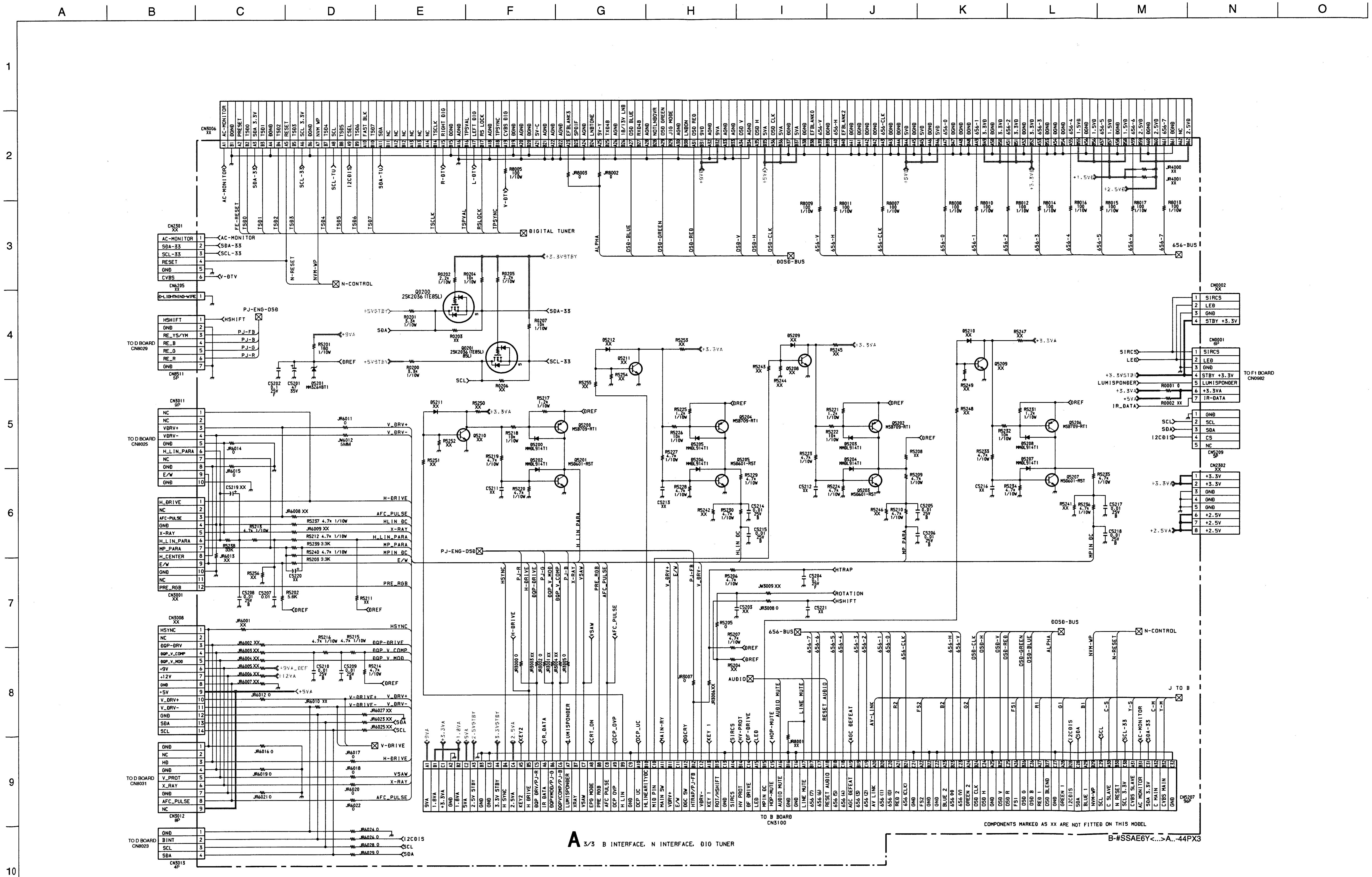
Note : Les composants identifiés par une trame et par une marque ⚠sont dune importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié. specified.


A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
1
2
3
4
5
6
7
8
9
10
11
B-#SSAE6Y<. .>-A.-44PX3
IC4004
AUDIO AMPLIFIER WOOFER
IC2400
IC2500 TDA7265
CN2400
TO WOOFER
WOOFER SP
CN5000
CN6000
CN2300
TO HI BOARD CN2912
CN2202
TO G BOARD CN6012
CN2501
IC5104
IC5102
IC2300
IC2000 MSP3410G SOUND PROCESSOR
CN5004
J TO B PA03
TO J BOARD CN3604
CN3002
IC5400
IC2200 UPC4558G2
L AUDIO IN
R AUDIO IN
ANALOG TUNER PA02
CVBS ANALOG RF
AUDIO MUTE
POWER OFF MUTE
SP PROTECTION
LINE MUTE
COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL
A 1/3 AUDIO, DEFLECTION, J INTERFACE

~ A Board Schematic Diagram [Audio, Deflection, J_Interface] Page 1/3 ~


A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
1
2
3
4
5
6
7
8
9
10
11
B-#SSAE6Y<...>-A..-44PX3
COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL
TO G BOARD CN6008
CN6200 6P
MAINRY
DGC RY
SGND
STBY
STBYAC
STBY5V
R2025 0
MAIN-RY
DGCRY
STBY
STBYAC
+5VSTBY
D6204 D1NL20U-TA
+11V
TO G BOARD CN6006
CN6207 10P
+11VD
NC
DGND
+15V
+11V
AGND
+6V
AGND
+33V
OCP
OVP
JW6209 7.5MM
+11VD
+15V
+11V
+6V
+33VA
OCP
OVP
CN6201 XX
+11V
AGND
+6V
AGND
+33V
OCP
OVP
+33VA
STBY AREA
IC6212 SI-8050S-L 5 VOLT REGULATOR
R6222 0
R6234 XX
R6214 0
L6211 JW 5mm
+5VSTBY
C6235 2200pF 35V
D6211 EK19-V0
L6213 150µH
C6237 1000 16V
R6248 47k 1/10W
R6249 47k 1/10W
Q6209 MSD601-RST
C6238 0.1 50V
D6214 UDZ-7.5B
Q6208 MSD601-RST
C6256 47 35V
R6250 47k 1/10W
IC6210 3.3 VOLT REGULATOR
IC6211 2.5 VOLT REGULATOR
DIGITAL TUNER
TU1200 XX
PDSYNC
PDVAL
PDCLK
PD7
PD6
PD5
PD4
PD3
PD2
PD1
AS
SCL
SDA
+3.3V
(+1.8V)
PRESET
AGC MONI
VC +32V
B1 +5V
NC
SPLITTER +5V
NC
R1227 XX
R1214 XX
R1215 XX
+3.3VA
TPSYNC
RSLOCK
TSPVAL
TSCLK
TSD7
TSD6
TSD5
TSD4
TSD3
TSD2
TSD1
TSD0
DIGITAL TUNER
TUNER
TU1100 BTF-EF411 TUNER
AGC
AS
SCL
SDA
+33V
IF
IF
GND
+5V
FM/AM
QSS
VIDEO
STEREO
R1100 0
R1104 XX
R1105 0
C1107 100 16V
C1108 33pf 50V
D1105 XX
L1103 10UH
+5VA
+33VA
C1100 XX
D1100 XX
C1101 XX
L1100 0µH
L1101 0µH
C1105 47 50V
D1101 XX
C1106 0.0047 50V B
L1102 100µH
R1107 XX
R1106 0
R1108 0
L1104 1µH
C1109 33p 50V CH
D1104 XX
C1102 XX
R1101 XX
D1102 XX
D1103 XX
R1110 18k 1/10W
R1111 1k 1/10W
AGC DEFEAT
FROM B-BRD CONNECTOR
Q1100 MSD601-RST
C1103 100pF 50V
C1104 100pF 50V
R1102 0
R1103 0
SCL
SDA
AM
QSS
CVBS ANALOG RF
PAG1
ANALOG TUNER
CN6203 Tab Contact
A-LIGHTNING-WIRE
CN6204 XX
A-LIGHTNING-WIRE
CN6206 XX
A-LIGHTNING-WIRE
OCP/OVP LATCH
+3.3VSTBY
Q6202 MSB709-RT1 LATCH
Q6203 MSD601-RST1
D6205 MIHA152WK-T1
D6210 RB715SB2
OCP_OVP
OVP
OCP
OCP_UC
+5V & +12V REG AREA
IC6204 L7805CV/LSY 5 VOLT REGULATOR
D6207 D1NL20U-TA
+5VA
+5VA_DEF
IC6205
+12VA
+5VD
+5VA_DEF
+3.3V REGULATORS AREA
IC6201 BA033T 3.3V REGULATOR
+3.3VA
IC6207
FB6201
+3.3VD
AC ON/OFF
+5VA
R6233 XX
+3.3VSTBY
R6232 0
Q6205 MSB709-RT1 BUFFER
AC-MONITOR
Q6204 MSB709-RT1
R6229 100k 1/10W
R6238 0
Q6207 MSD601-RST1
R6228 10k 1/10W
R6227 150K
STBYAC
R6223 220k 1/10W
R6231 22K 1/10W
R6230 100k 1/10W
Q6201 MSD601-RST1
Q6206 MSD601-RST1
R6224 18K 1/10W
C6254 0.047 50V
R6225 10K 1/10W
R6226 1k 1/10W
+5V REGULATORS AREA
IC6200 L7805CV/LSY 5 VOLT REGULATOR
C6200 0.1 25V
C6206 100 25V
C6209 100 25V
C6203 0.1 25V
+5VA
IC6206 XX
L6209 XX
FB6200 XX
+5VD
+2.5V REGULATORS AREA
IC6216 XX
C6261 XX
C6259 XX
C6260 XX
C6262 XX
+2.5VA
L6216 XX
IC6209 XX
FB6203 XX
+2.5VD
+1.8V & +1.5V REG. AREA
IC6202 PQ1CG2032FZ 1.8V REGULATOR
JR6201 XX
JW6210 10MM
FB6204 JW 5MM
R6245 XX
R6243 XX
R6244 1k 1/10W
R6246 470 1/10W
C6208 1000 16V
D6213 UZ54MF
R6247
L6218 100µH
L6219 10µH
+1.8VA
Q6211
Q6210
IC6208 XX
JW6208 XX
+3.3VD
+1.5VD
A 2/3 MODEM A TUNER REGULATORS

~ A Board Schematic Diagram [Modem, A_Tuner, Regulators] Page 2/3 ~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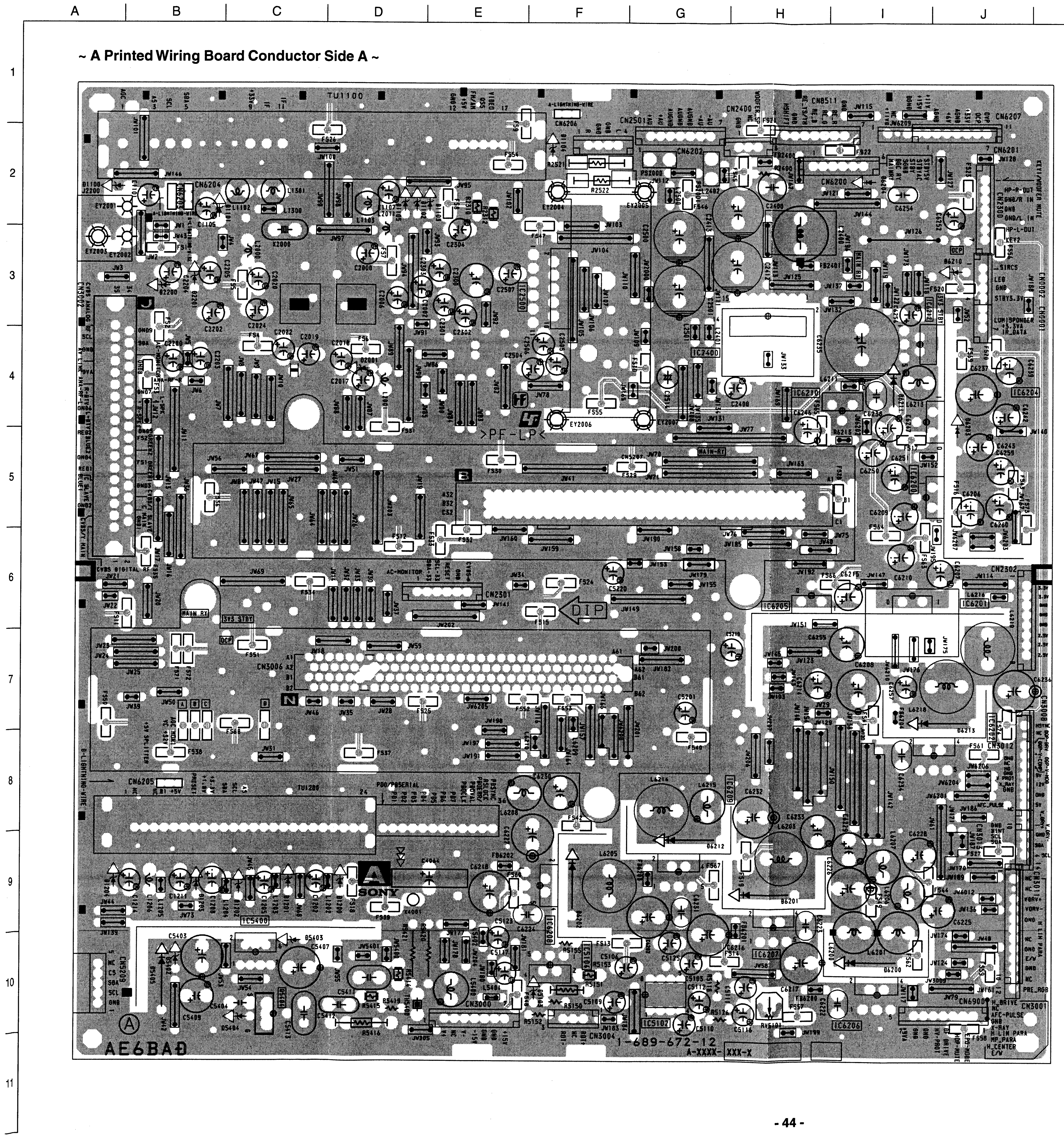
CN3006 XX
CN2301 XX
AC-MONITOR
SDA-33
SCL-33
RESET
GND
CVBS
V-DTV
CN6205 XX
D-LIGHTNING-WIPE
DIGITAL TUNER
N-CONTROL
ODSD-BUS
656-BUS
PJ-ENG-OSD
TO D BOARD CN8029
CN8511 6P
TO D BOARD CN8025
CN5011 9P
CN3001 XX
CN3008 XX
TO D BOARD CN8031
CN3012 8P
TO D BOARD CN8023
CN3013 4P
Q0200 2SK2036 (TE85L)
Q0201 2SK2036 (TE85L)
+3.3VSTBY
+5VSTBY
SDA
SCL
DREF
+3.3VA
CN0002 XX
SIRCS
LED
GND
STBY +3.3V
CN0001 6P
TO F1 BOARD CN0982
LUMISPONDER
+3.3VA
IR_DATA
CN3209 5P
I2CDIS
CN2502 XX
+2.5V
HSYNC
H-DRIVE
V-DRIVE
AFC_PULSE
HTRAP
ROTATION
HSHIFT
AUDIO
J TO B
TO B BOARD CN3100
CN5207 96P
COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL
B-#SSAE6Y<...>A..-44PX3

A 3/3 B INTERFACE, N INTERFACE, DIG TUNER

~ A Board Schematic Diagram [B_Interface, N_Interface, Dig_Tuner] Page 3/3 ~

~ A Printed Wiring Board Conductor Side A ~



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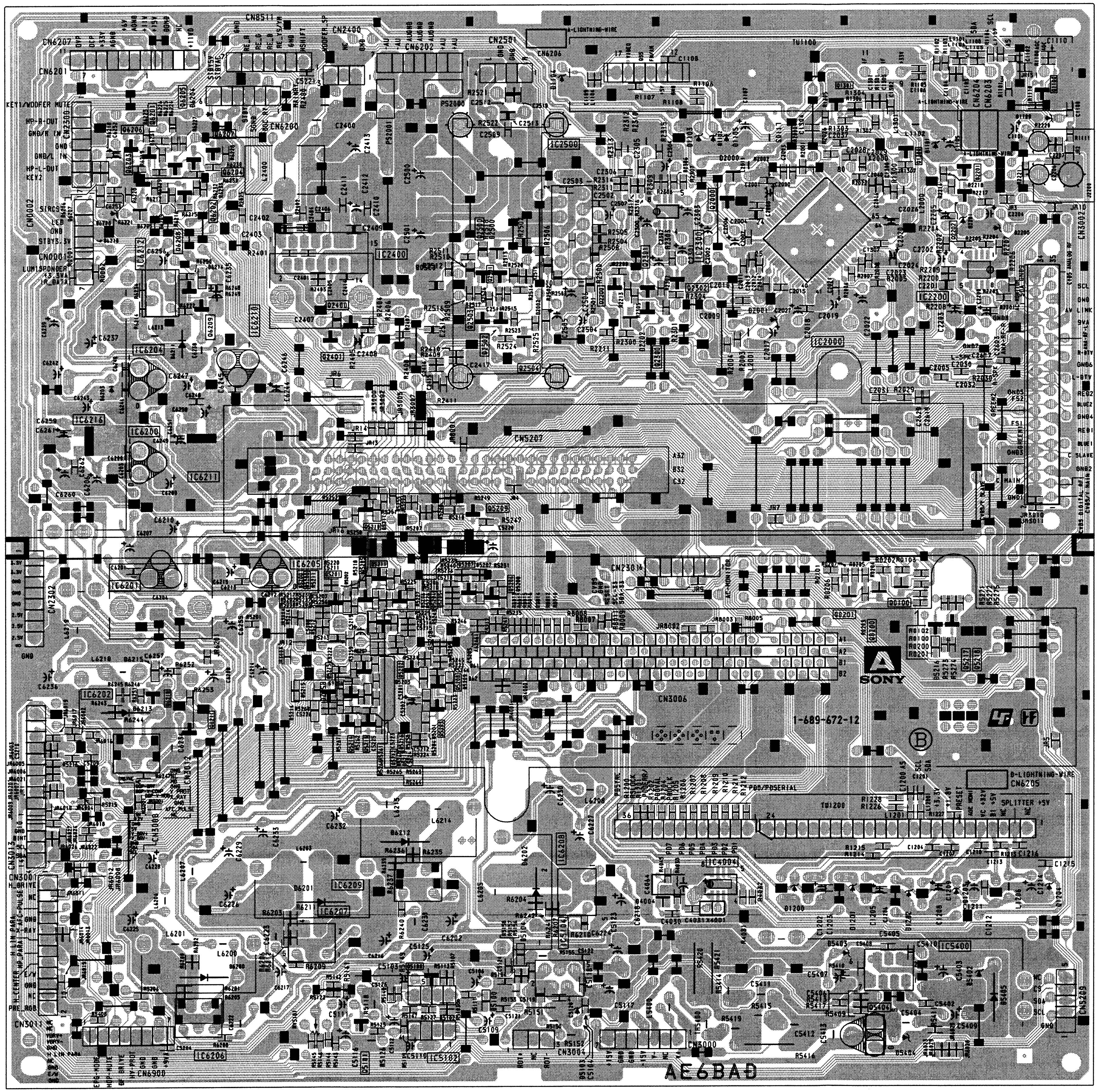
TU1100
CN2501
CN2400
CN8511
CN6207
CN6201
CN6204
CN6202
CN6200
CN2500
CN3002
CN3006
CN2301
CN2302
CN3008
CN6205
TU1200
CN5200
CN3000
CN3004
CN6900
CN3001
>PF-LP<
DIP
SONY
AE6BAD
1-689-672-12
A-XXXX-XXX-X

~ A Board Location Table (B Side) ~

DIODE		D5405	B - 10	D6211	I - 4	IC2500	E - 3	IC6204	J - 4
D2200	B - 3	D6201	H - 9	D6212	G - 8	IC5102	G - 10	IC6207	H - 10
D2201	B - 3	D6203	J - 4	D6213	J - 7	IC5104	F - 10	IC6209	G - 8
D5103	E - 10	D6204	I - 2	**IC**		IC5400	C - 9	IC6210	H - 4
D5404	C - 10	D6210	J - 3	IC2400	G - 4	IC6202	J - 7	IC6212	I - 3

~ A Printed Wiring Board Conductor Side B ~



~ A Board Location Table (B Side) ~

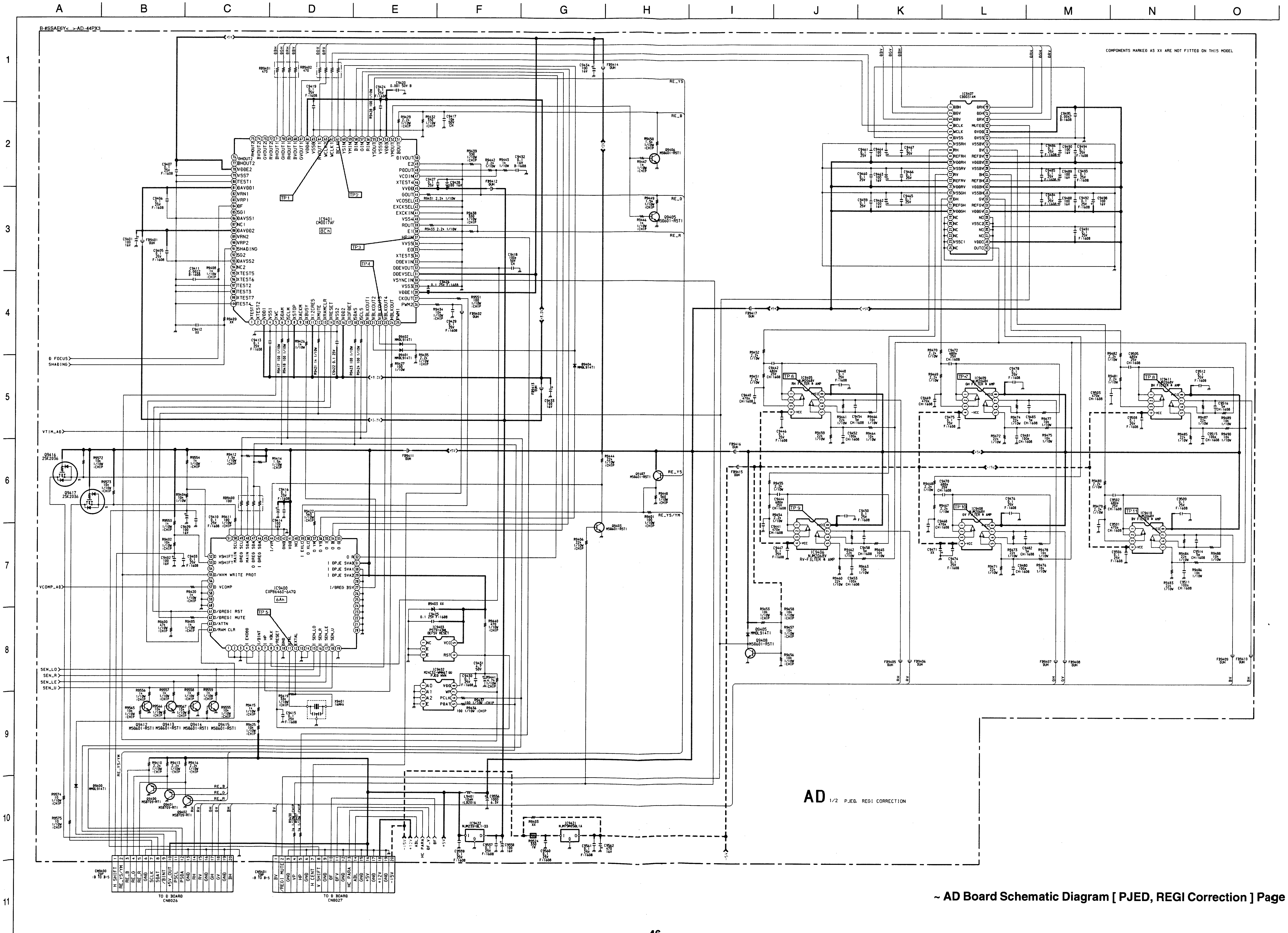
DIODE		D5405	I - 10	D6211	B - 4	IC2500	F - 3	IC6204	BM - 4
D2200	J - 3	D6201	C - 9	D6212	D - 9	IC5102	E - 11	IC6207	C - 9
D2201	I - 3	D6203	A - 5	D6213	B - 8	IC5104	I - 10	IC6209	D - 9
D5103	F - 11	D6204	B - 2	IC		IC5400	I - 10	IC6210	C - 4
D5404	I - 11	D6210	B - 3	IC2400	D - 4	IC6202	A - 7	IC6212	B - 3

~ A Board IC Voltage Table ~

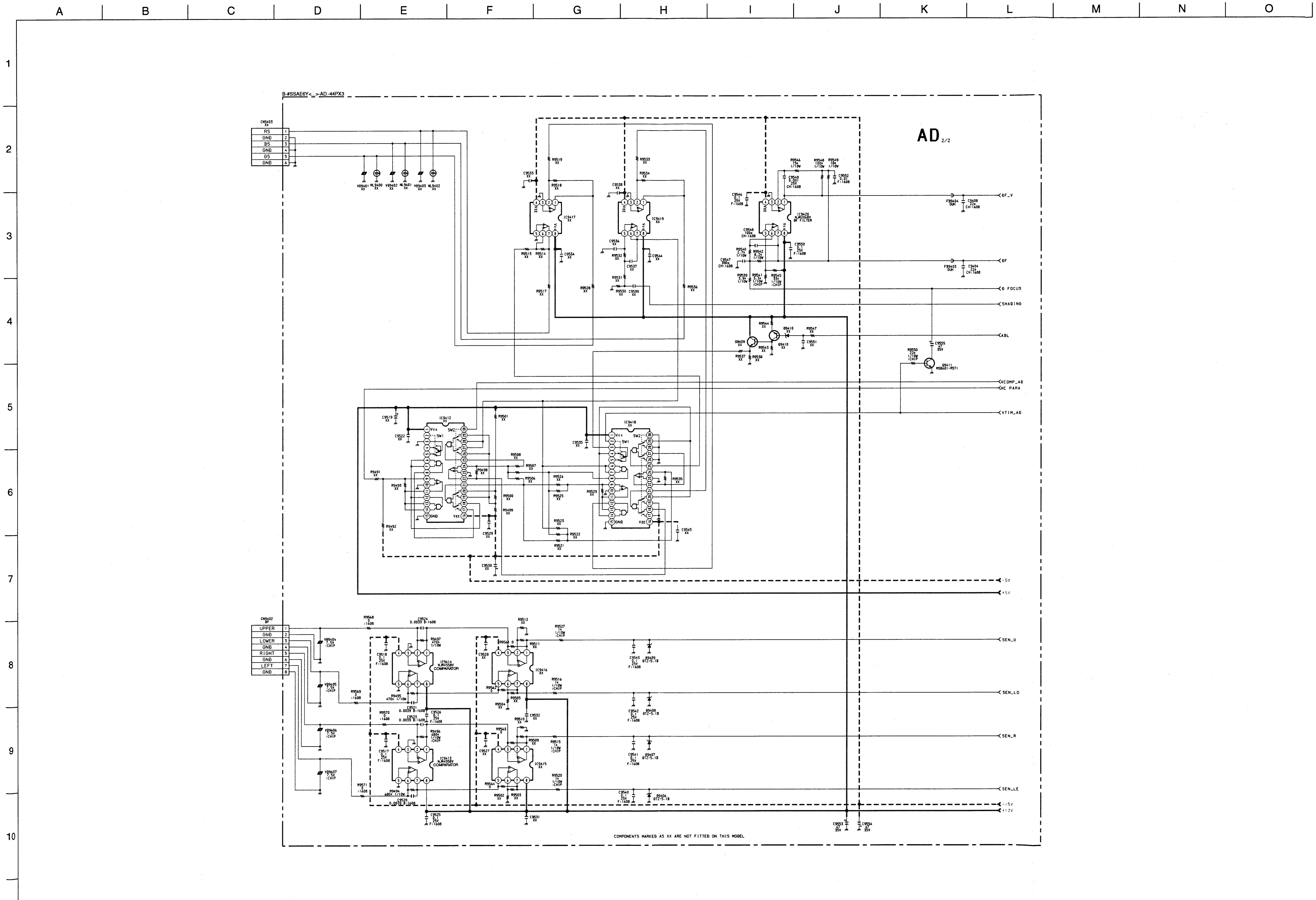
IC Voltage Table			IC Voltage Table			IC Voltage Table		
Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)
IC2200	1	4.5	IC2400	5	0	IC5102	8	2.2
	2	4.5		6	-13.2	IC5104	1	14.6
	3	4.5		10	3.9	IC5400	1	0.4
	5	4.5		12	-4.0		3	-12.3
	6	4.5	IC2500	2	0		5	0
	7	4.5		5	0.9		6	15.7
IC2300	1	4.0		7	0		7	0.4
	3	4.0		8	0	IC6202	4	1.3
	5	0.5		9	0		5	6.7
	6	0		10	0	IC6207	4	1.3
	7	0		11	0		5	6.7
	8	0.5	IC5102	1	17.1	IC6209	4	1.3
IC2400	1	0		2	0		5	6.7
	2	-4.0		5	2.5	IC6212	4	5.1
	3	10.0		6	2.5		5	0

~ A Board Semiconductor Voltage Table ~

Ref	(e)(s)	(b)(g)	(c)(d)
Q1100	0	0	4.5
Q1300	2.7	2.1	8.4
Q1301	2.1	2.1	0
Q2000	0	0	4.7
Q2200	0	0	-1.6
Q2201	0	0.4	0
Q2202	0	0.4	0
Q2300	0	0	0.7
Q2301	0	0.4	0
Q2302	0	0.4	0
Q2400	3.9	3.4	0
Q2401	0	0	4.7
Q2500	0.1	0.1	0.6
Q2501	0	0.6	0
Q2502	0	0	5.0
Q2503	0	0	5.0
Q2504	5.0	5.0	0
Q5100	2.4	1.8	0
Q5101	0.8	1.4	6.8
Q5200	6.8	6.3	3.0
Q5201	0	0.4	3.0
Q5203	0	0.4	3.0
Q5205	0	0.4	1.5
Q5207	0	0.4	3.0
Q5208	0	0	1.5
Q5209	0	0	1.5
Q5210	0	0	1.5
Q5211	0	0	1.5
Q5404	0	12.1	0
Q6201	1.5	0.6	3.4
Q6202	3.4	3.4	0
Q6203	0	0	3.4
Q6204	3.4	3.4	0
Q6205	3.5	2.7	3.4
Q6206	1.5	2.0	2.7
Q6207	0	0	3.4


B-#SSAE6Y<...>-AD.-44PX3
COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL
IC9401
CMD017AF
IC9400
CXP86460-647Q
TP1
TP2
TP3
TP4
TP5
TP6
TP9
TP10
TP11
B FOCUS
SHADING
VTIM_AD
VCOMP_AD
SEN_LO
SEN_R
SEN_LE
SEN_U
RE_YS
RE_B
RE_G
RE_R
RE_YS/YM
CN9400
TO B BOARD
CN8026
CN9401
TO B BOARD
CN8027
AD 1/2 PJED, REGI CORRECTION

~ AD Board Schematic Diagram [PJED, REGI Correction] Page 1/2 ~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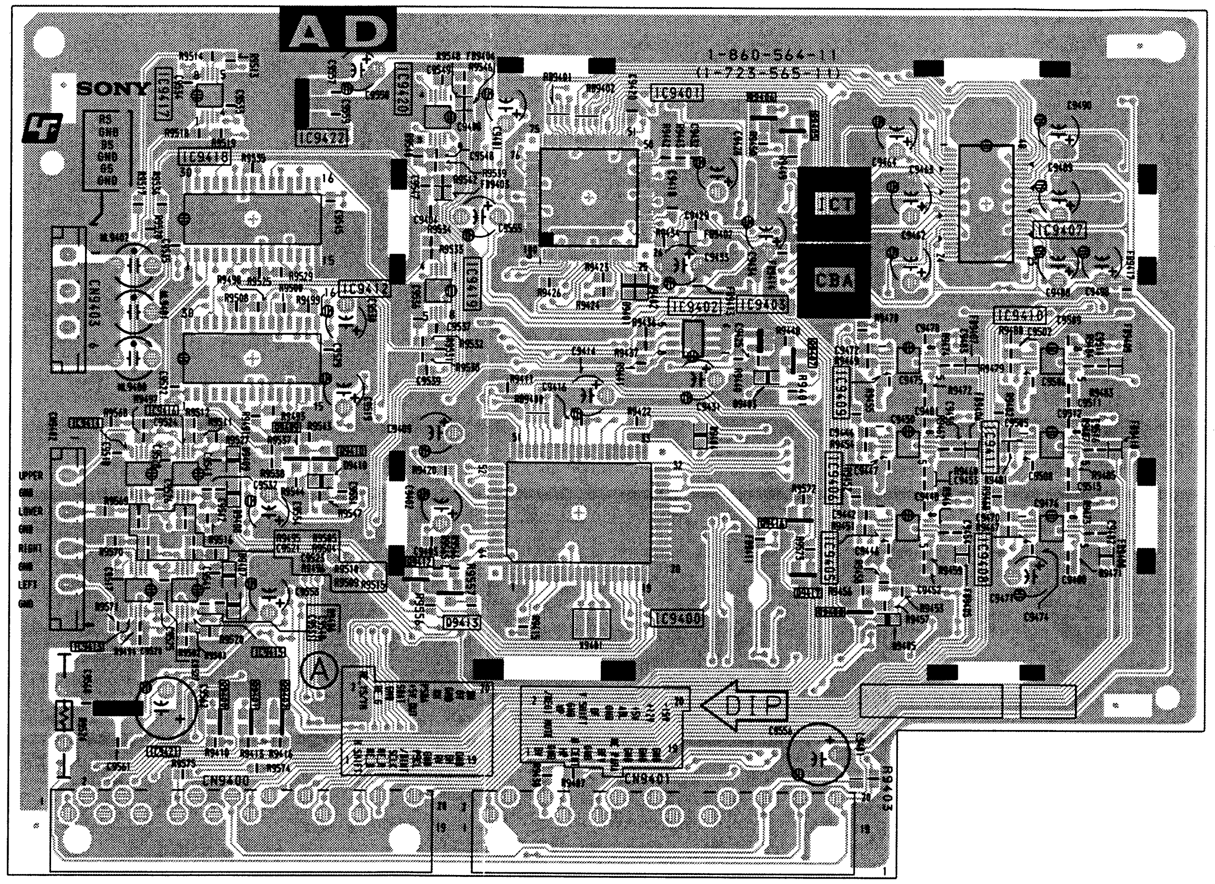
AD 2/2
B-#SSAE6Y<...>-AD.-44PX3
CN9403 XX
RS 1
GND 2
BS 3
GND 4
GS 5
GND 6
VD9401 XX
NL9400 XX
VD9402 XX
NL9401 XX
VD9403 XX
NL9402 XX
C9533 XX
R9519 XX
R9518 XX
IC9417 XX
VEE
Vcc
R9513 XX
R9514 XX
C9534 XX
R9517 XX
R9528 XX
C9538 XX
R9533 XX
R9534 XX
IC9419 XX
C9536 XX
R9532 XX
C9537 XX
C9544 XX
R9531 XX
R9530 XX
C9539 XX
R9536 XX
R9546 15k 1/10W
R9548 100k 1/10W
R9549 18k 1/10W
C9549 0.001 25V CH:1608
C9552 0.01 F:1608
C9546 0.1 25V F:1608
IC9420 NJM2068V DF FILTER
C9548 100p CH:1608
C9550 0.1 25V F:1608
R9540 2.7k 1/10W
R9542 8.2k 1/10W
C9547 390p CH:1608
R9539 3.9k 1/10W
R9541 3.3k 1/10W :CHIP
R9545 33k 1/10W :CHIP
FB9404 0UH
C9408 22p CH:1608
FB9403 0UH
C9404 22p CH:1608
DF_V
DF
D FOCUS
SHADING
ABL
VCOMP_AD
HC PARA
VTIM_AD
R9544 XX
D9410 XX
R9547 XX
Q9409 XX
Q9410 XX
C9551 XX
R9543 XX
R9537 XX
R9538 XX
C9555 47 35V
R9550 22k 1/10W :CHIP
Q9411 MSB601-RST1
IC9412 XX
IC9418 XX
Vcc
SW1
SW2
GND
VEE
C9519 XX
C9522 XX
R9501 XX
R9491 XX
R9493 XX
R9492 XX
R9498 XX
R9508 XX
R9507 XX
R9506 XX
R9500 XX
R9499 XX
C9529 XX
C9530 XX
R9526 XX
R9525 XX
R9523 XX
R9522 XX
R9521 XX
R9529 XX
C9535 XX
R9535 XX
C9545 XX
-5V
+5V
CN9402 8P
UPPER 1
GND 2
LOWER 3
GND 4
RIGHT 5
GND 6
LEFT 7
GND 8
VD9404 7.5V :CHIP
VD9405 7.5V :CHIP
VD9406 7.5V :CHIP
VD9407 7.5V :CHIP
R9568 0 :1608
C9524 0.0039 B:1608
R9497 470k 1/10W
C9518 0.1 25V F:1608
IC9414 NJM4558V COMPARATOR
R9569 0 :1608
R9495 470k 1/10W
C9521 0.0039 B:1608
C9526 0.1 25V F:1608
R9570 0 :1608
C9523 0.0039 B:1608
R9496 680k 1/10W :CHIP
C9517 0.1 25V F:1608
IC9413 NJM4558V COMPARATOR
R9571 0 :1608
R9494 680k 1/10W
C9520 0.0039 B:1608
C9525 0.1 25V F:1608
R9512 XX
R9561 0
R9511 XX
C9528 XX
IC9416 XX
R9562 0
R9505 XX
R9504 XX
C9532 XX
R9510 XX
R9563 0
R9509 XX
C9527 XX
IC9415 XX
R9564 0
R9502 XX
R9503 XX
C9531 XX
R9527 1k 1/10W :CHIP
R9516 1k 1/10W :CHIP
R9515 1k 1/10W :CHIP
R9520 1k 1/10W :CHIP
C9543 0.1 25V F:1608
D9409 DTZ-5.1B
C9542 0.1 25V F:1608
D9408 DTZ-5.1B
C9541 0.1 25V F:1608
D9407 DTZ-5.1B
C9540 0.1 25V F:1608
D9406 DTZ-5.1B
SEN_U
SEN_LO
SEN_R
SEN_LE
-15V
+12V
C9553 47 35V
C9554 47 35V

COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL

11

~ AD Board Schematic Diagram [PJED, REGI Correction] Page 2/2 ~

~ AD Printed Wiring Board Conductor side A ~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SONY
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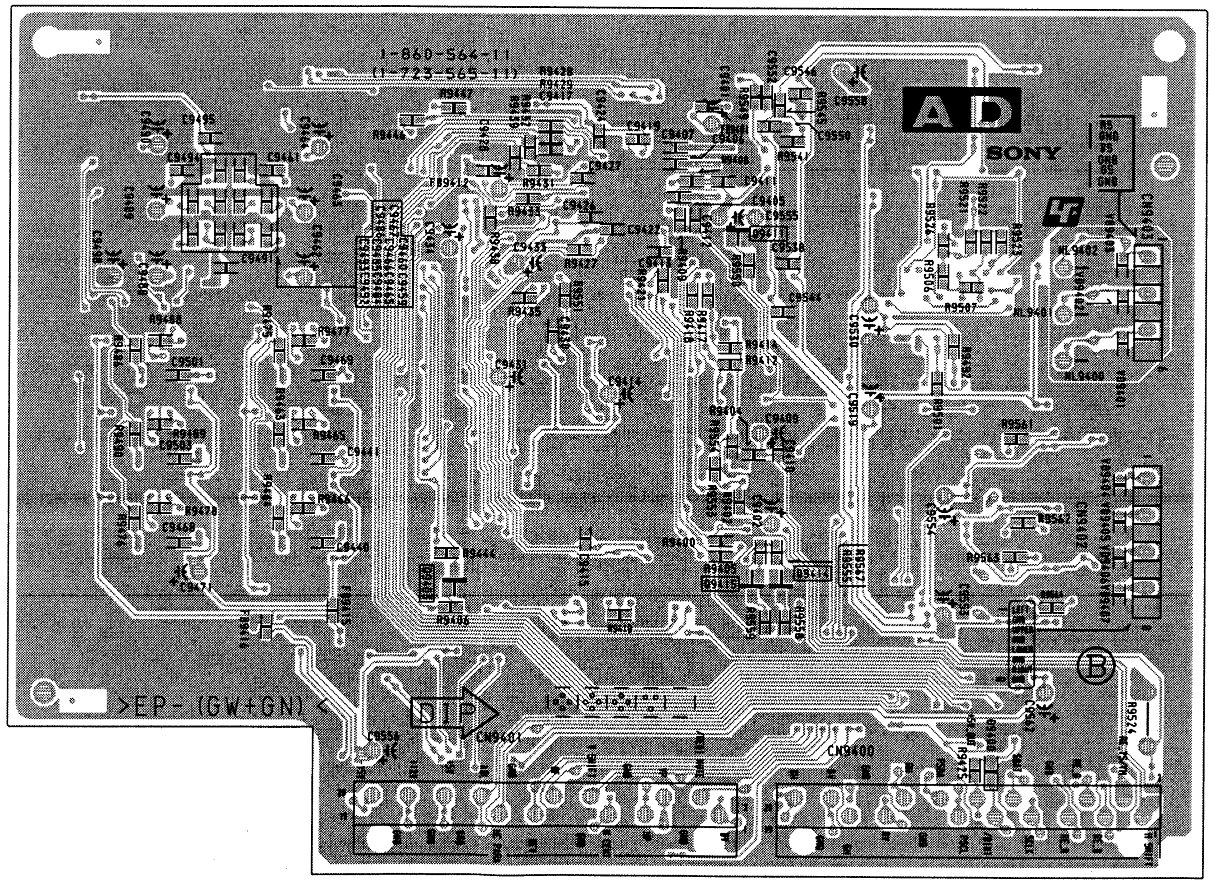
(1-723-565-11)
IC9401
IC9402
IC9403
IC9407
IC9410
IC9418
IC9412
IC9400
D9413
CN9403
CN9400
CN9401
ICT
CBA
DIP
Ⓐ
R9403
UPPER
GND
LOWER
GND
RIGHT
GND
LEFT
GND

~ AD Printed Wiring Board Conductor side B ~


1-860-564-11
(1-723-565-11)
AD
SONY
>EP-(GW+GN)<
DIP
CN9401
CN9400
CN9403
Ⓑ
C9495
C9491
C9501
C9469
C9460
C9477
R9488
R9489
R9478
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R9440
R9427
R9435
R9412
R9431
R9404
R9409
R9524
R9561
R9563
R9567
C9407
C9414
C9427
C9558
C9559
C9555
C9556

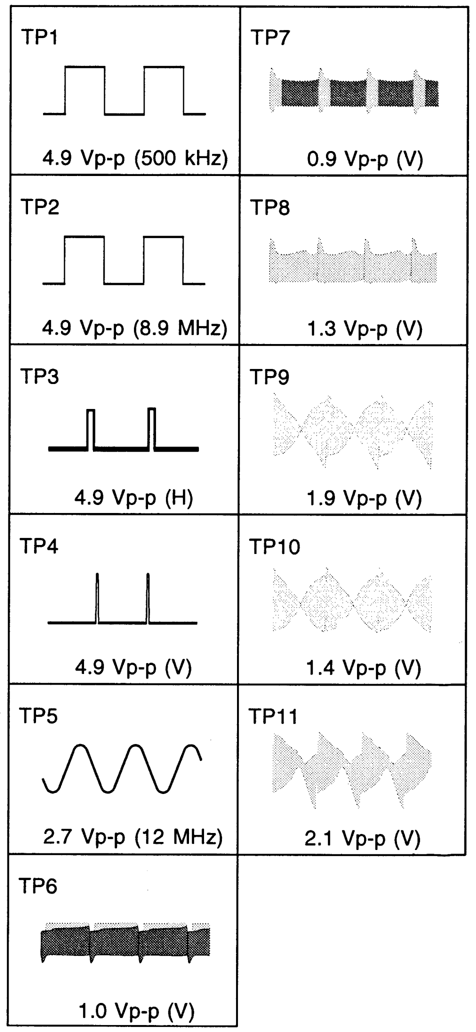
~ AD Board Location Table (A Side) ~

DIODES		D9407	B - 4	IC9402	E - 3	IC9409	F - 3	IC9421	B - 5	Q9405	E - 2
D9401	D - 3	D9408	B - 3	IC9403	E - 3	IC9410	F - 3	IC9422	C - 1	Q9406	E - 1
D9402	D - 3	D9409	B - 3	IC9405	E - 5	IC9411	F - 3	TRANSISTOR		Q9407	E - 3
D9404	E - 3	IC		IC9406	E - 3	IC9413	B - 4	Q9400	B - 5	Q9412	C - 4
D9405	F - 4	IC9400	D - 4	IC9407	G - 2	IC9414	B - 3	Q9401	B - 5	Q9413	C - 4
D9406	B - 4	IC9401	D - 2	IC9408	F - 4	IC9420	C - 1	Q9402	C - 5	Q9416	E - 4

~ AD Board Location Table (B Side) ~

TRANSISTOR	
Q9403	C - 9
Q9411	E - 7
Q9414	E - 9
Q9415	E - 9

~ AD Board Waveforms ~



~ AD Board IC Voltage Table ~

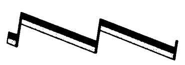
IC Voltage Table			IC Voltage Table			IC Voltage Table			IC Voltage Table			IC Voltage Table		
Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)
IC9414	1	0	IC9400	49	4.4	IC9401	47	1.2	IC9406	1	2.6	IC9408	1	2.6
	2	0		50	4.8		48	1.2		2	2.6		2	2.6
	6	0		52	4.9		51	0		3	2.6		3	2.6
	7	0		53	4.9		55	0		5	2.0		5	2.0
IC9413	1	0		55	4.9		61	3.9		6	2.0		6	2.0
	2	0		59	4.9		62	3.2		7	0		7	0
	6	0		60	4.9		64	3.5	IC9407	1	3.9	IC9409	1	2.6
	7	0		61	4.9		67	3.3		2	3.2		2	2.6
IC9400	4	2.5		62	4.7		68	3.8		3	3.7		3	2.6
	6	4.3		64	4.9		69	3.0		4	3.6		5	2.0
	7	0.8	IC9401	5	4.9		70	2.4		5	3.3		6	2.0
	8	0.1		6	4.3		71	4.0		6	0		7	0
	9	4.9		7	4.4		82	1.4		8	2.7	IC9410	1	2.6
	11	2.6		8	4.9		83	2.0		9	3.5		2	2.6
	12	2.5		9	5.0		84	1.2		12	2.6		3	2.6
	15	0		10	4.7		85	1.7		13	3.5		5	2.0
	16	0		11	4.9		89	1.4		16	2.6		6	2.0
	17	0		12	4.6		90	2.0		17	3.5		7	0.2
	18	0		13	4.9		92	1.7		25	2.0	IC9411	1	2.4
	26	5.0		14	4.9	IC9403	4	4.9		32	3.5		2	2.4
	27	4.7		17	5.0	IC9402	5	4.3		33	2.6		3	2.4
	28	5.0		18	4.3		6	4.4		36	3.5		5	2.0
	33	0		19	4.4		7	4.9		37	2.4		6	2.0
	38	3.4		23	0.1	IC9405	1	2.7		40	3.5		7	0.6
	39	2.8		30	0.1		2	2.7		41	2.6			
	44	4.7		32	2.5		3	2.7		45	4.6			
	46	4.3		37	0.8		5	2.0		46	3.4			
	47	4.3		39	0		6	2.0		47	2.4			
	48	4.8		44	0		7	-0.2		48	3.0			

~ AD Board Semiconductor Voltage Table ~

Ref	(e)	(b)	(c)
Q9403	0	0.2	4.7
Q9400	0.7	0	0
Q9401	0.7	0	0
Q9402	0.7	0	0

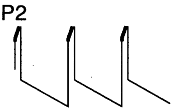
~ D Board Waveforms ~

TP1



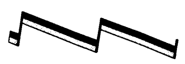
1.0 Vp-p (V)

TP2



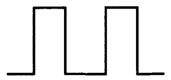
56.0 Vp-p (V)

TP3



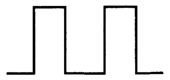
0.8 Vp-p (V)

TP4



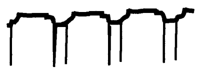
5.4 Vp-p (H)

TP5



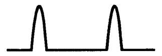
221.5 Vp-p (H)

TP6



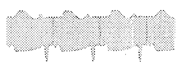
9.0 Vp-p (H)

TP7



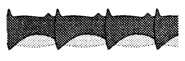
1245 Vp-p (H)

TP8



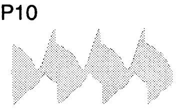
22.8 Vp-p (V)

TP9



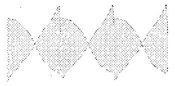
17.8 Vp-p (V)

TP10



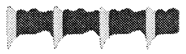
38.3 Vp-p (V)

TP11



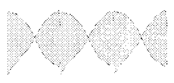
31.3 Vp-p (V)

TP12



22.3 Vp-p (V)

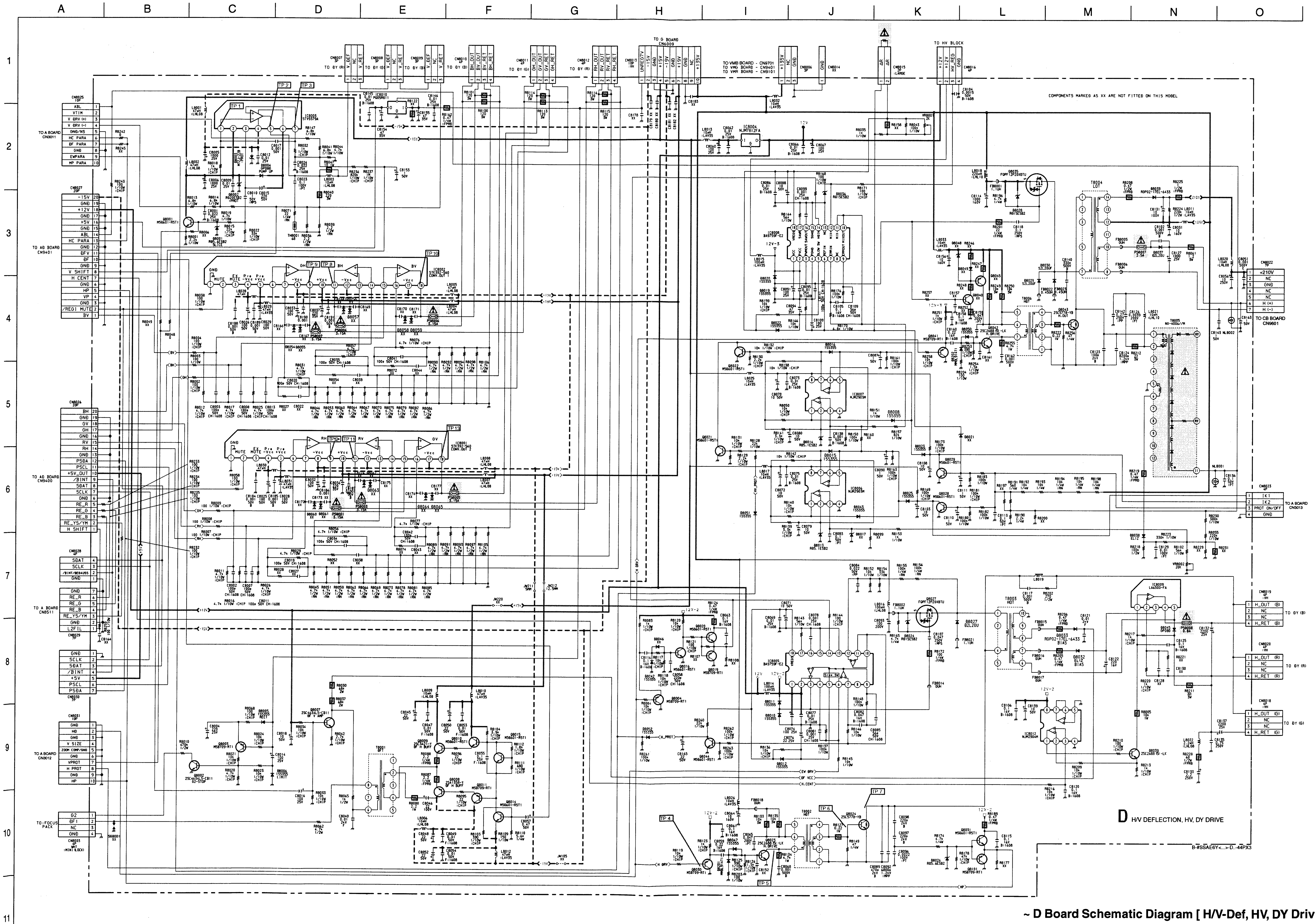
TP13



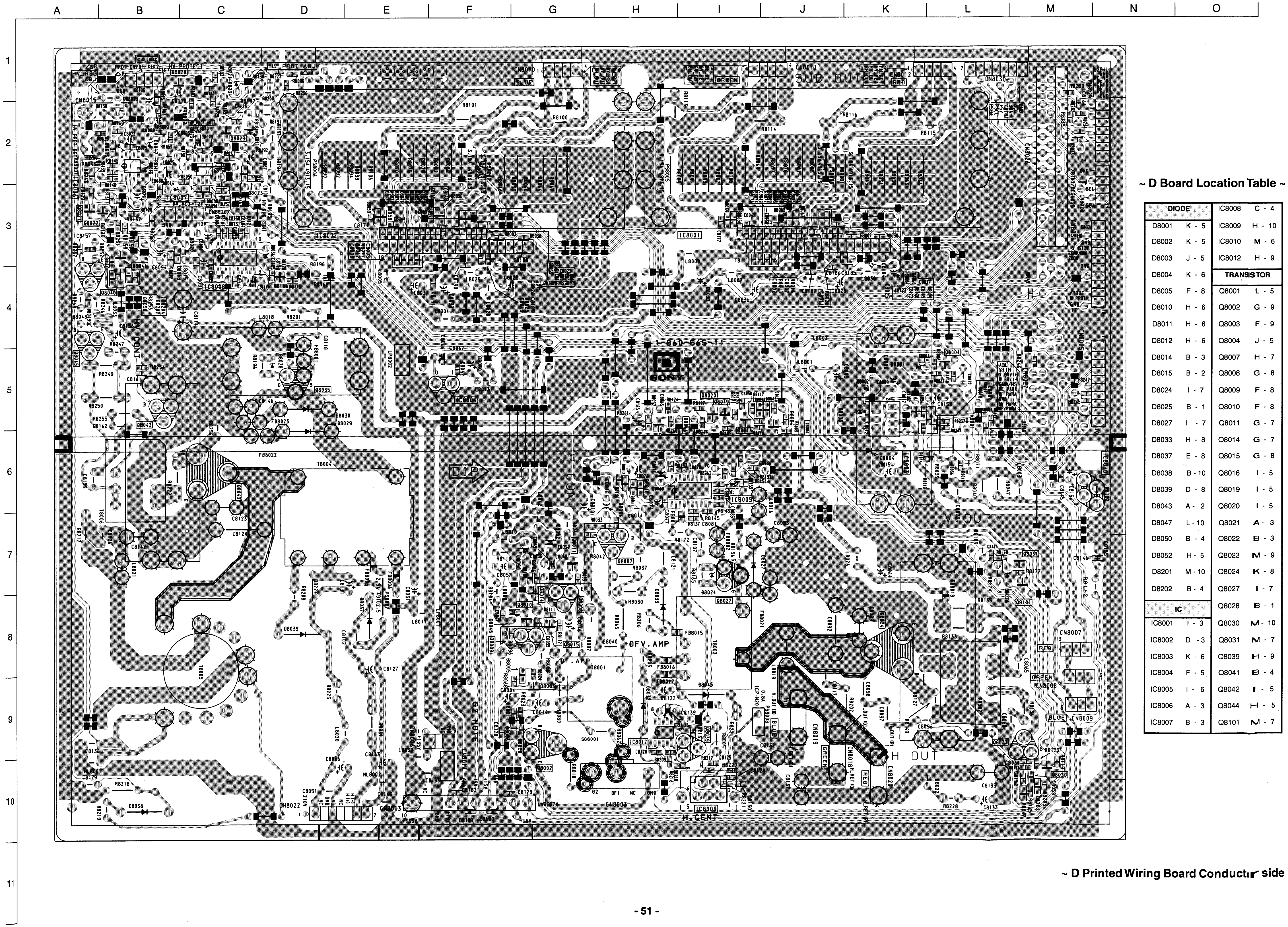
22.3 Vp-p (V)

~ D Board IC Voltage Table ~

IC Voltage Table			IC Voltage Table			IC Voltage Table			IC Voltage Table		
Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)
IC8001	4	0	IC8001	21	-0.2	IC8002	7	0.2	IC8002	22	0.1
	5	0		22	0.1		9	0.1	IC8003	1	1.1
	6	-0.1	IC8002	2	-18.5		10	0.1		3	-12.8
	7	-0.1		4	0		20	0.5		5	0.2
	9	-0.2		5	0		21	0.2		6	13.7
	10	-0.2		6	0.2		22	0.1		7	1.1
	20	-0.2									


A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
1
2
3
4
5
6
7
8
9
10
11
TO D BOARD CN6009
TO VMB BOARD - CN9701
TO VMG BOARD - CN9401
TO VMR BOARD - CN9101
TO HV BLOCK
COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL
TO A BOARD CN3011
TO AB BOARD CN9401
TO AB BOARD CN9400
TO A BOARD CN8511
TO A BOARD CN3012
TO FOCUS PACK
TO CB BOARD CN9601
TO A BOARD CN3013
TO DY (B)
TO DY (R)
TO DY (G)
TP 1
TP 2
TP 3
TP 4
TP 5
TP 6
TP 7
TP 8
TP 9
TP 10
TP 11
TP 12
TP 13
T8001
T8002
T8003 HDT
T8004 LOT
T8005
IC8001
IC8002
IC8003
IC8004
IC8005
IC8006
IC8007
IC8008
IC8009
IC8010
IC8012
+210V
NC
GND
H (+)
H (-)
IK1
IK2
PROT ON/OFF
H_OUT (B)
H_RET (B)
H_OUT (R)
H_RET (R)
H_OUT (G)
H_RET (G)
G2
DF1
HP
D H/V DEFLECTION, HV, DY DRIVE
B-#SSAE6Y<...>-D.-44PX3

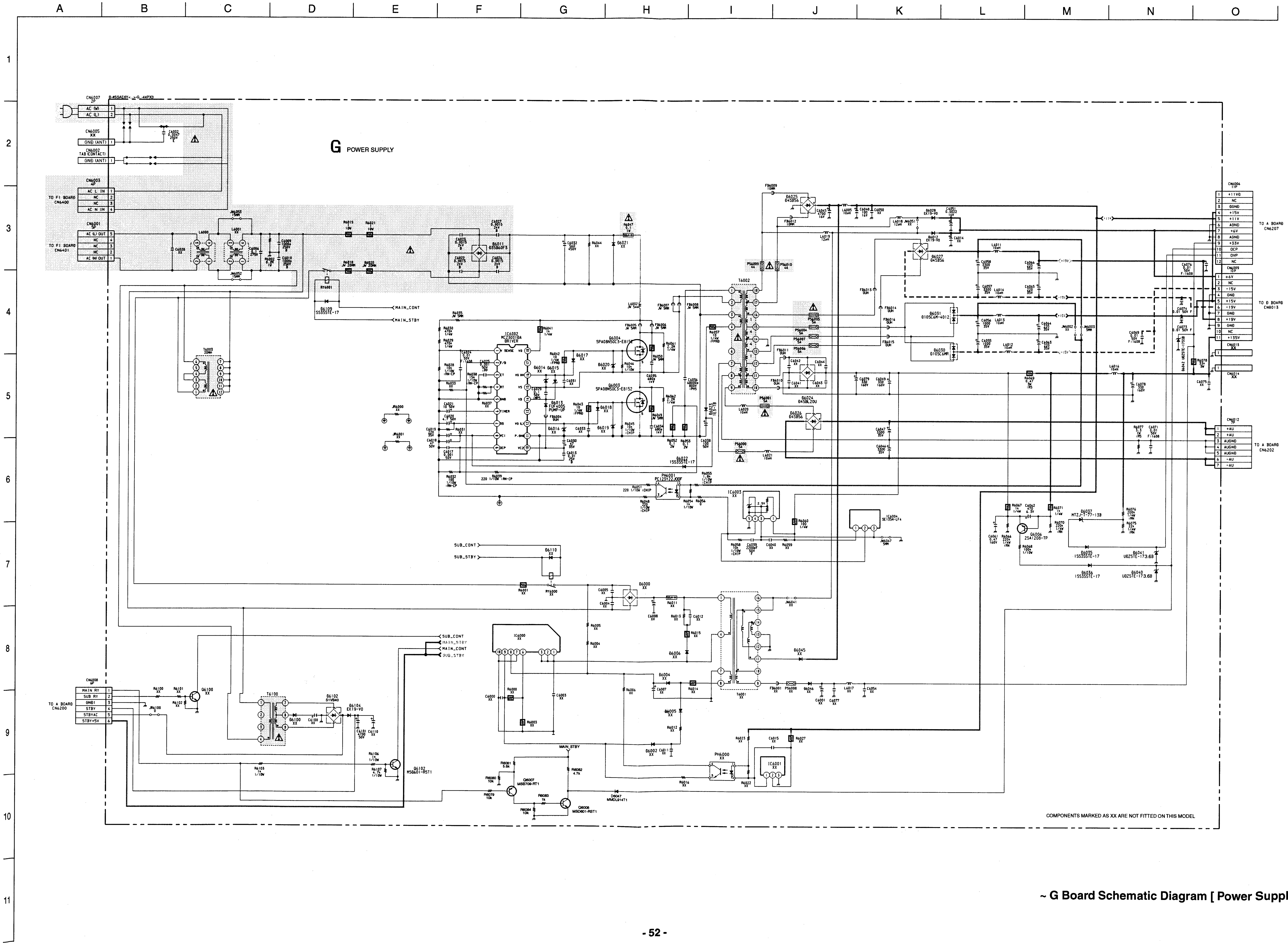
~ D Board Schematic Diagram [H/V-Def, HV, DY Drive] ~


A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
1
2
3
4
5
6
7
8
9
10
11
HV PROTECT
HV PROT ADJ
CN8010
BLUE
GREEN
CN8011
SUB OUT
CN8012
RED
CN8030
1-860-565-11
D
SONY
HV CONT
H CONT
DIP
V OUT
DFV.AMP
DF.AMP
G2 MUTE
H OUT
H.CENT
CN8003
CN8007
CN8008
CN8009
CN8013
CN8022
+135V

~ D Printed Wiring Board Conductor side ~

~ D Board Location Table ~

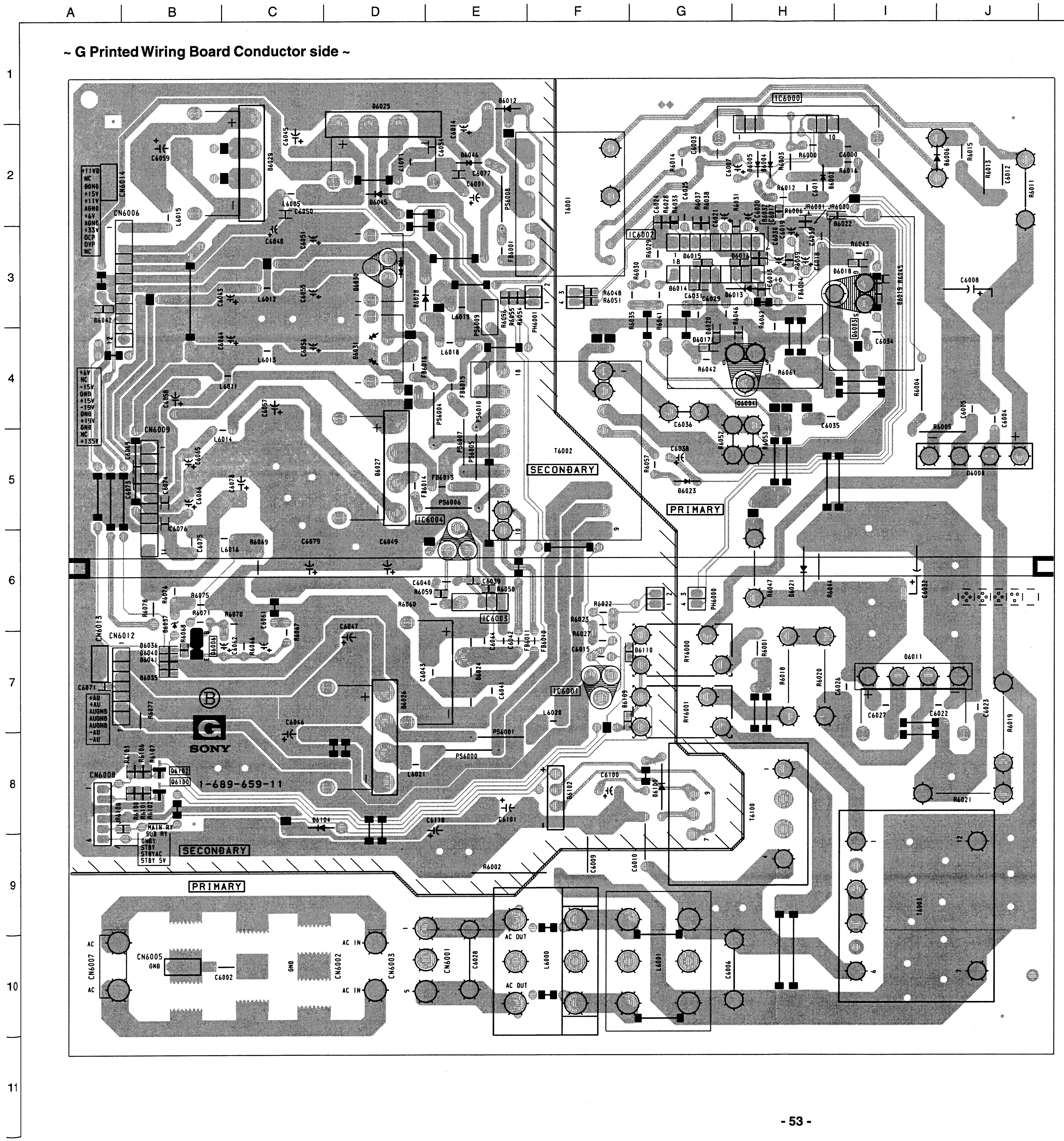
DIODE	
D8001	K - 5
D8002	K - 5
D8003	J - 5
D8004	K - 6
D8005	F - 8
D8010	H - 6
D8011	H - 6
D8012	H - 6
D8014	B - 3
D8015	B - 2
D8024	I - 7
D8025	B - 1
D8027	I - 7
D8033	H - 8
D8037	E - 8
D8038	B - 10
D8039	D - 8
D8043	A - 2
D8047	L - 10
D8050	B - 4
D8052	H - 5
D8201	M - 10
D8202	B - 4
IC	
IC8001	I - 3
IC8002	D - 3
IC8003	K - 6
IC8004	F - 5
IC8005	I - 6
IC8006	A - 3
IC8007	B - 3
IC8008	C - 4
IC8009	H - 10
IC8010	M - 6
IC8012	H - 9
TRANSISTOR	
Q8001	L - 5
Q8002	G - 9
Q8003	F - 9
Q8004	J - 5
Q8007	H - 7
Q8008	G - 8
Q8009	F - 8
Q8010	F - 8
Q8011	G - 7
Q8014	G - 7
Q8015	G - 8
Q8016	I - 5
Q8019	I - 5
Q8020	I - 5
Q8021	A - 3
Q8022	B - 3
Q8023	M - 9
Q8024	K - 8
Q8027	I - 7
Q8028	B - 1
Q8030	M - 10
Q8031	M - 7
Q8039	H - 9
Q8041	B - 4
Q8042	I - 5
Q8044	H - 5
Q8101	M - 7


A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
1
2
3
4
5
6
7
8
9
10
11
G POWER SUPPLY
CN6007 2P
B-#SSAE6Y<...>-G..-44PX3
AC (W) 1
AC (L) 2
CN6005 XX
GND (ANT) 1
C6002 0.0047 250V E
CN6002 TAB (CONTACT)
GND (ANT) 1
CN6003 4P
TO F1 BOARD CN6400
AC L IN 1
NC 2
NC 3
AC N IN 4
CN6001 5P
TO F1 BOARD CN6401
AC (L) OUT 5
NC 4
NC 3
NC 2
AC (N) OUT 1
JW6053 15MM
L6000
L6001 XX
C6028 XX
C6006 0.1 275V
JW6052 15MM
D6011 D3SB60F3
IC6002 MC33001BA DRIVER
Q6004 SPA08N50C3-E8152
Q6003 SPA08N50C3-E8152
T6002
T6003
PH6001 PC123Y22J00F
IC6003 XX
IC6004 SE135N-LF4
D6024 D4SBL20U
D6026 D4SB56
D6025 D4SB56
D6027 D4SB56
D6051 D10SC6M-4012
D6030 D10SC6M
Q6006 2SA1208-TP
D6037 MTZJ-T-77-13B
D6035 1SS355TE-17
D6036 1SS355TE-17
D6041 UDZSTE-173.6B
D6040 UDZSTE-173.6B
D6042 UDZSTE-1733B
R6078 33k 3W
C6076 0.01 50V F:1608
C6075 XX
CN6006 11P
TO A BOARD CN6207
1 +11VD
2 NC
3 DGND
4 +15V
5 +11V
6 AGND
7 +6V
8 AGND
9 +33V
10 OCP
11 OVP
12 NC
CN6009 10P
TO D BOARD CN8013
1 +6V
2 NC
3 -15V
4 GND
5 +15V
6 -19V
7 GND
8 +19V
9 GND
10 NC
11 +135V
CN6013 XX
CN6014 XX
CN6012 7P
TO A BOARD CN6202
1 +AU
2 +AU
3 AUGND
4 AUGND
5 AUGND
6 -AU
7 -AU
MAIN_CONT
MAIN_STBY
RY6001
D6109 1SS355TE-17
SUB_CONT
SUB_STBY
D6110
RY6000
D6000 XX
IC6000 XX
T6001 XX
PH6000 XX
IC6001 XX
D6045 XX
CN6008 6P
TO A BOARD CN6200
MAIN RY 1
SUB RY 2
GND1 3
STBY 4
STBYAC 5
STBY+5V 6
Q6100 XX
T6100
D6102 S1VB40
D6104 EK19-V0
Q6102 MSD601-RST1
MAIN_STBY
Q6007 MSB709-RT1
Q6008 MSD601-RST1
D6047 MMDL914T1
JR6000
JR6001

COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL

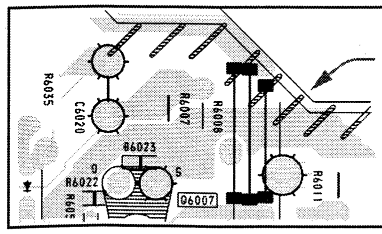
~ G Board Schematic Diagram [Power Supply] ~

~ G Printed Wiring Board Conductor side ~

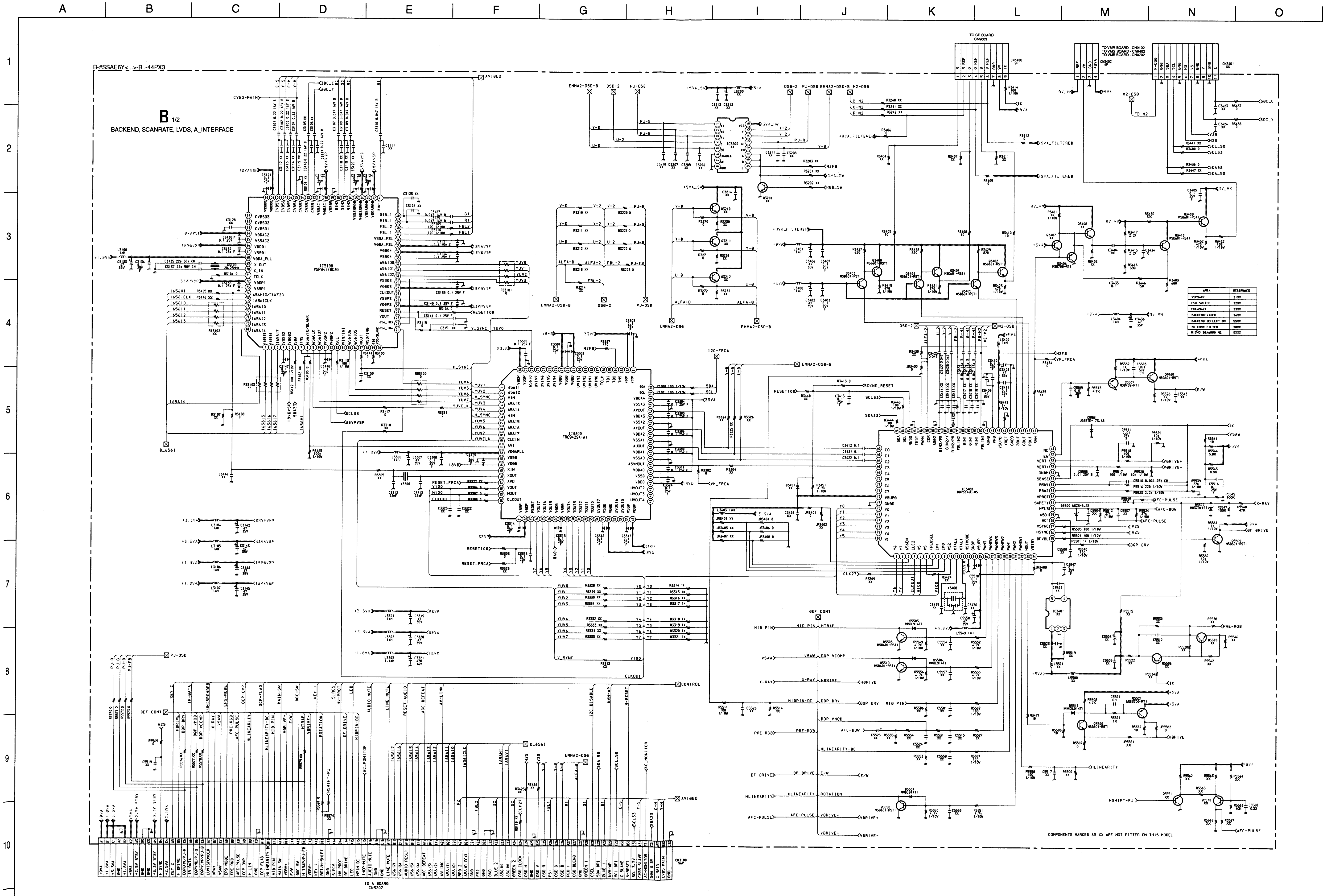

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
1
2
3
4
5
6
7
8
9
10
11
IC6000
IC6002
IC6003
IC6004
IC6001
T6001
T6002
T6100
T6003
SECONDARY
PRIMARY
SECONDARY
PRIMARY
CN6014
CN6006
CN6009
CN6013
CN6012
CN6008
CN6007
CN6005
CN6002
CN6003
CN6001
D6011
D6008
D6025
D6012
D6029
D6027
D6026
RY6000
RY6001
PH6000
PH6001
L6000
L6001
AC OUT
AC OUT
AC IN
AC IN
AC
AC
GND
GND
SONY
1-689-659-11
MAIN RY
SUB RY
GND
STBY
STBYAC
STBY 5V
+11VB
NC
BGND
+15V
+11V
AGND
+6V
AGND
+33V
OCP
OVP
NC
+6V
NC
-15V
GND
+15V
-19V
GND
+19V
GND
NC
+135V
+AU
+AU
AUGND
AUGND
AUGND
-AU
-AU
Q6003
Q6004
Q6006
Q6102
Q6100
D6007

~ G Board Location Table ~

DIODE			
		D6037	B - 6
D6011	I - 7	D6040	B - 7
D6012	E - 1	D6041	B - 7
D6013	H - 3	D6042	A - 3
D6022	H - 2	D6102	F - 8
D6023	G - 5	D6104	C - 8
D6024	E - 7	D6109	F - 7
D6025	D - 1	**IC**	
D6026	D - 7	IC6002	G - 3
D6027	D - 5	IC6004	E - 6
D6028	E - 3	**TRANSISTOR**	
D6030	D - 3	Q6003	I - 3
D6031	D - 4	Q6004	G - 4
D6035	B - 7	Q6006	B - 6
D6036	B - 7	Q6102	B - 8

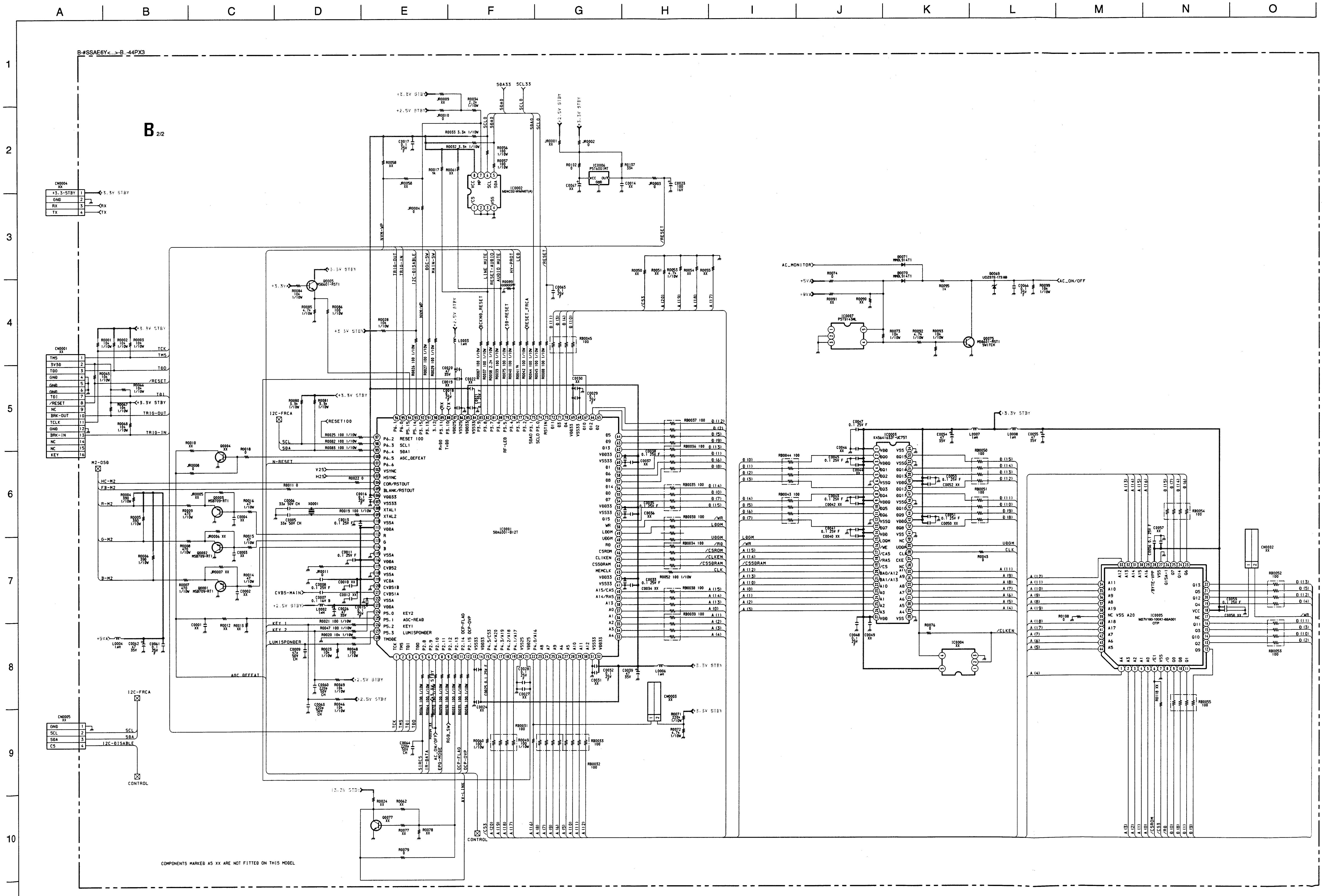

R6035
C6020
R6007
R6008
R6023
R6022
Q6007
R6011
S

Note :
Portions of the circuit contained within the marked areas as shown have high voltages present. Use care to prevent electric shock during inspection or repair. An Isolation Transformer must be used during any Service work to avoid possible shock hazard due to live chassis. The chassis of this receiver is directly connected to the power line.


A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
1
2
3
4
5
6
7
8
9
10
11
B 1/2
BACKEND, SCANRATE, LVDS, A_INTERFACE
IC3100
VSP9417BC50
IC3300
FRC9429A-A1
IC3400
DDP3316C-M5
IC3200
TO CR BOARD
CN9003
CN3400
9P
TO VMR BOARD - CN9102
TO VMG BOARD - CN9402
TO VMB BOARD - CN9702
CN3402
4P
CN3401
XX
M2-OSD
FB-M2
3DC_C
3DC_Y
AVIDEO
CONTROL
CVBS-MAIN
EMMA2-OSD-B
OSD-2
PJ-OSD
EMMA2-OSD
I2C-FRCA
RESET100
RESET_FRCA
CLKOUT
V100
Y_SYNC
H_SYNC
TO A BOARD
CN5207
CN5100
56P
COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL

AREA	REFERENCE
VSP94X7	31XX
OSD-SWITCH	32XX
FRCA942X	33XX
BACKEND-VIDEO	34XX
BACKEND-DEFLECTION	55XX
3D COMB FILTER	38XX
MICRO SDA6000 M2	0XXX

~ B Board Schematic Diagram [Backend, Scanrate, LVDS, A_Interface] Page 1/2 ~

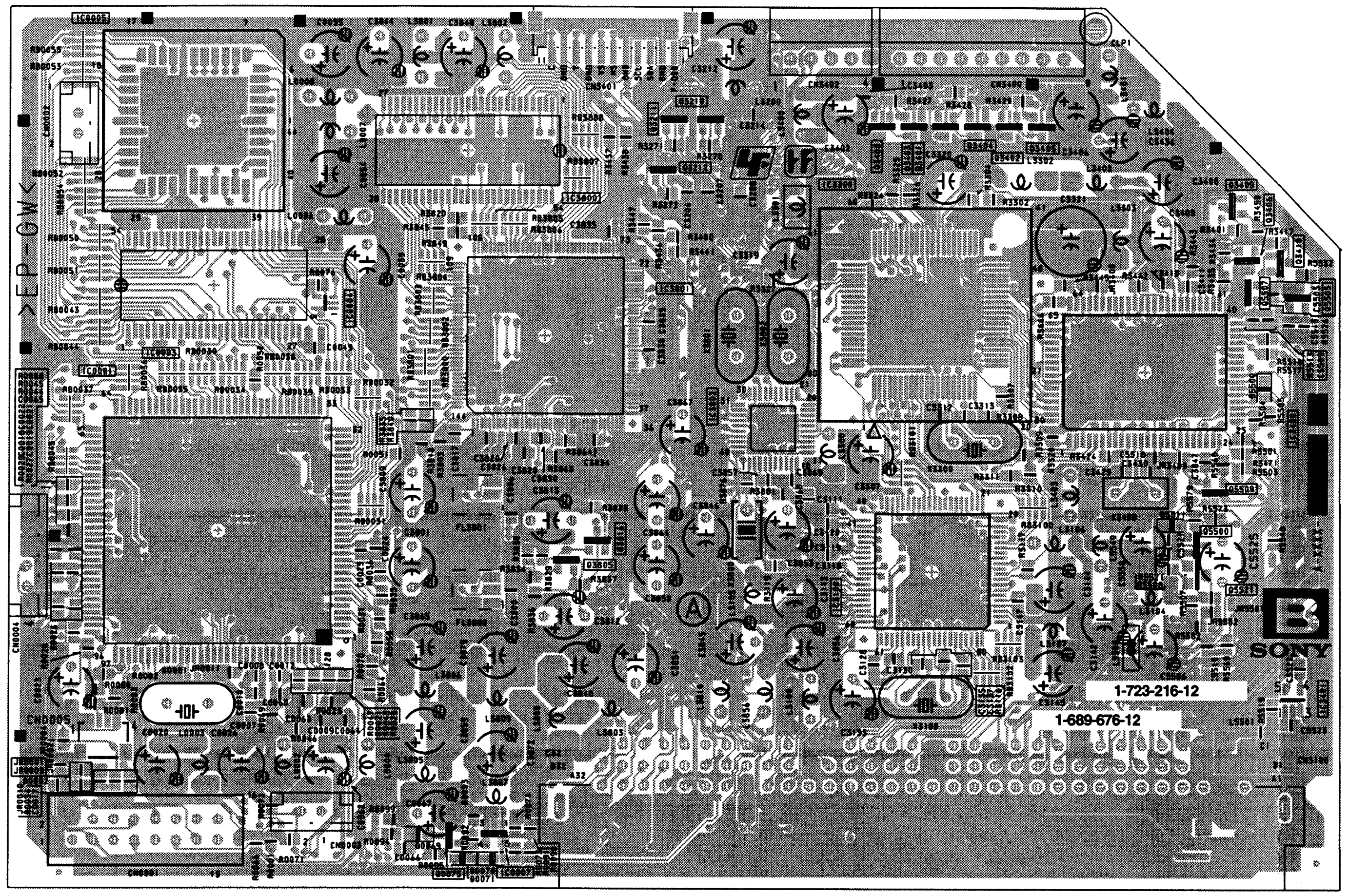

B 2/2
B-#SSAE6Y<...>-B..-44PX3
CN0004
CN0001
CN0005
CN0002
CN0003
IC0001 SDA6001-B12T
IC0002 M24C32-WMN6T(A)
IC0003 K4S641632F-UC75T
IC0004
IC0005 M27V160-100K1-6BA001 OTP
IC0006 PST6001MT
IC0007 PST9143NL
AC_MONITOR
AC_ON/OFF
I2C-FRCA
CONTROL
M2-DSO
AGC_DEFEAT
LUMISPONDER
CVBS-MAIN
SDA33 SCL33
+3.3V STBY
+2.5V STBY
COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL

~ B Board Schematic Diagram [Backend, Scanrate, LVDS, A_Interface] Page 2/2 ~

A B C D E F G H I J K L M N O

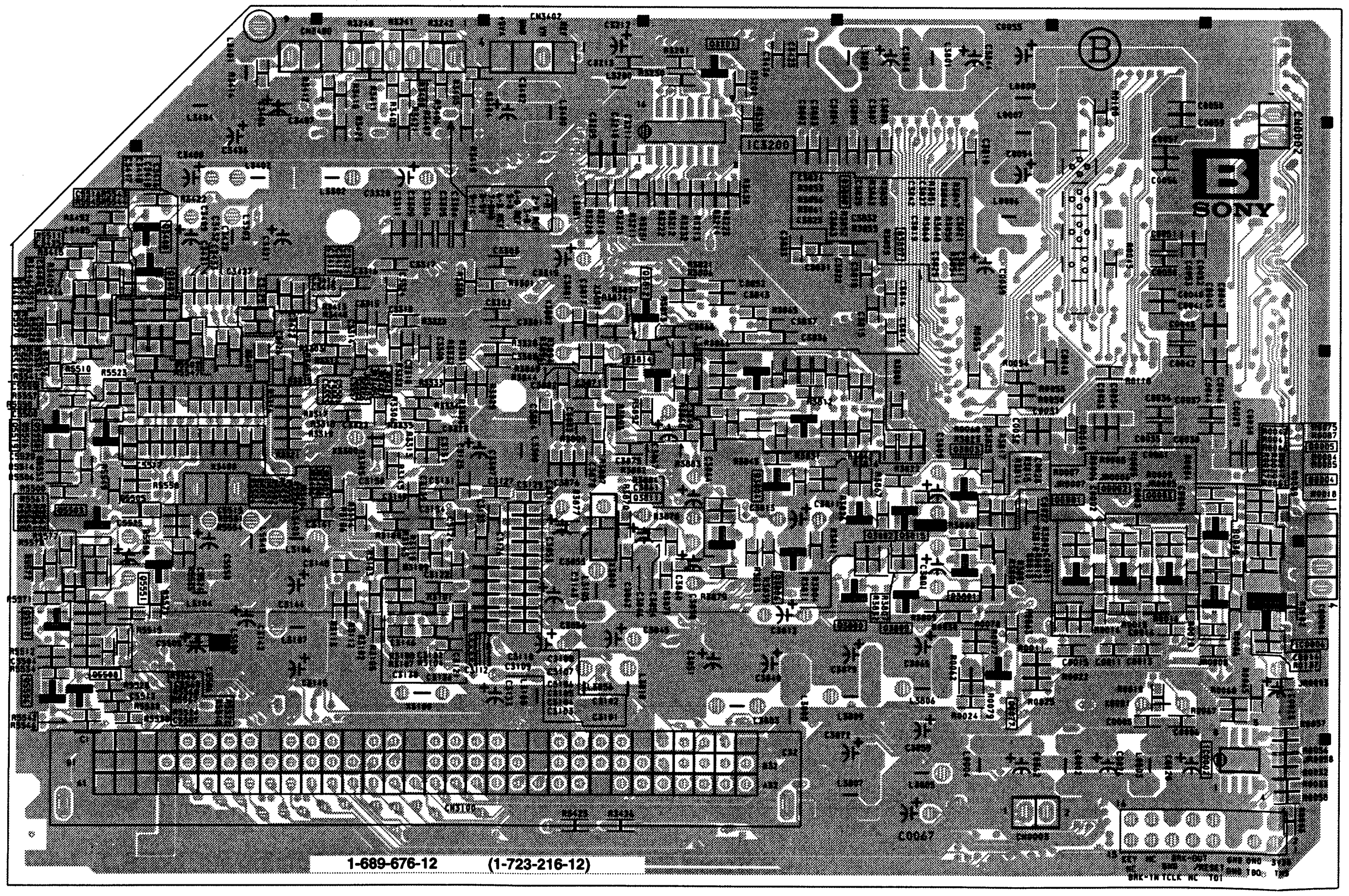
1 2 3 4 5 6 7 8 9 10 11

~ B Printed Wiring Board Conductor Side A ~



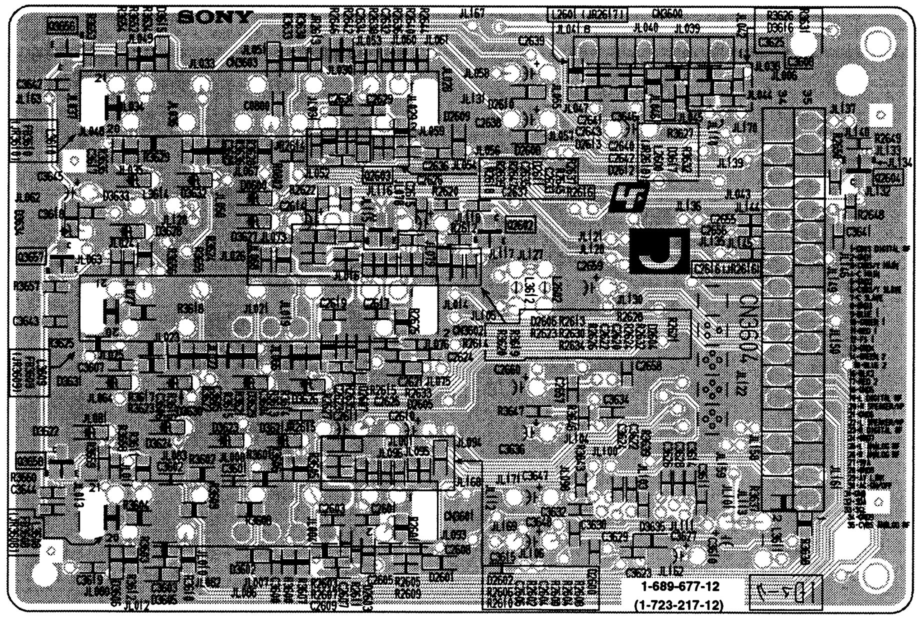
B
SONY
1-723-216-12
1-689-676-12
A

~ B Printed Wiring Board Conductor Side B ~

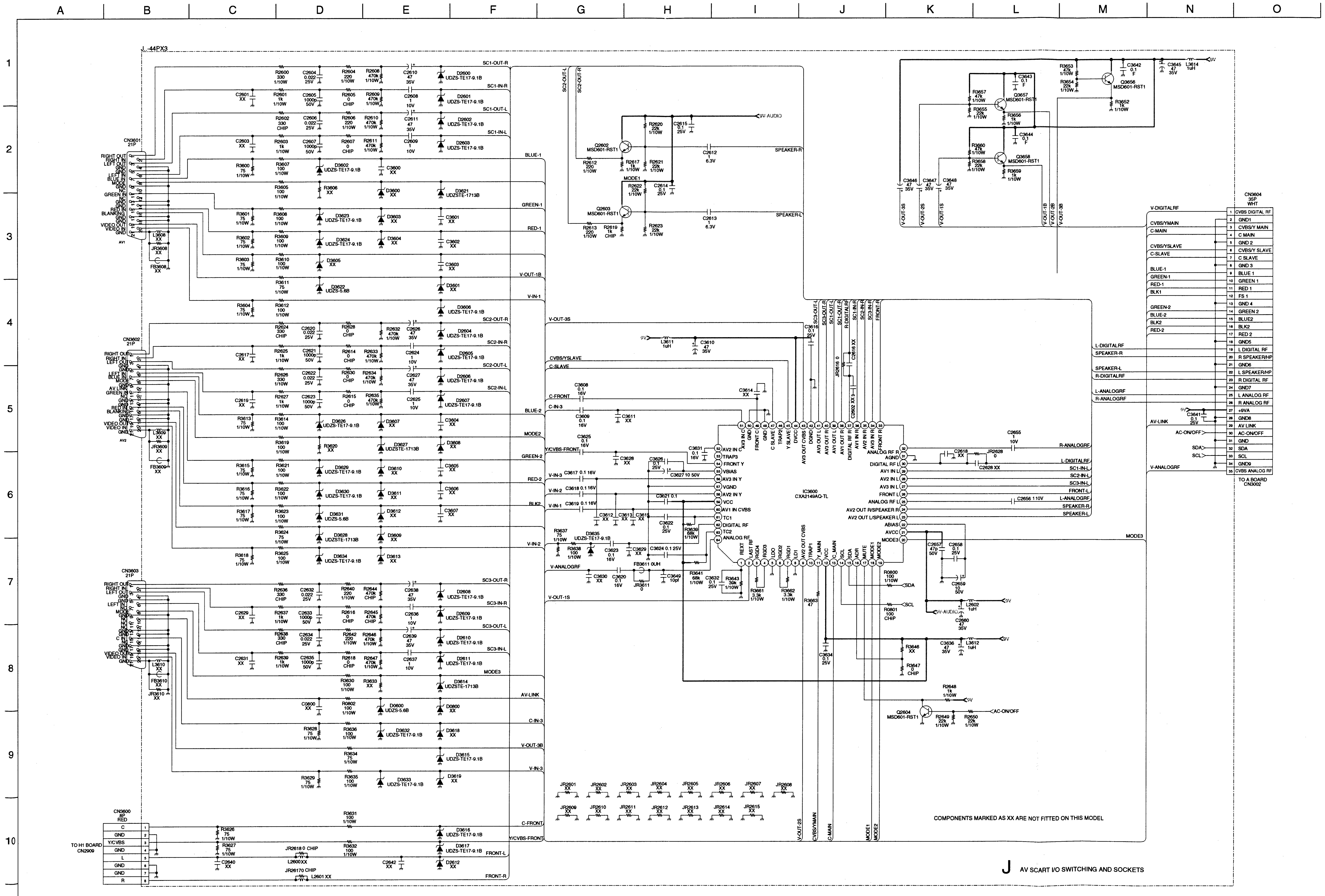


B
SONY
1-689-676-12 (1-723-216-12)

~ J Printed Wiring Board Conductor Side ~

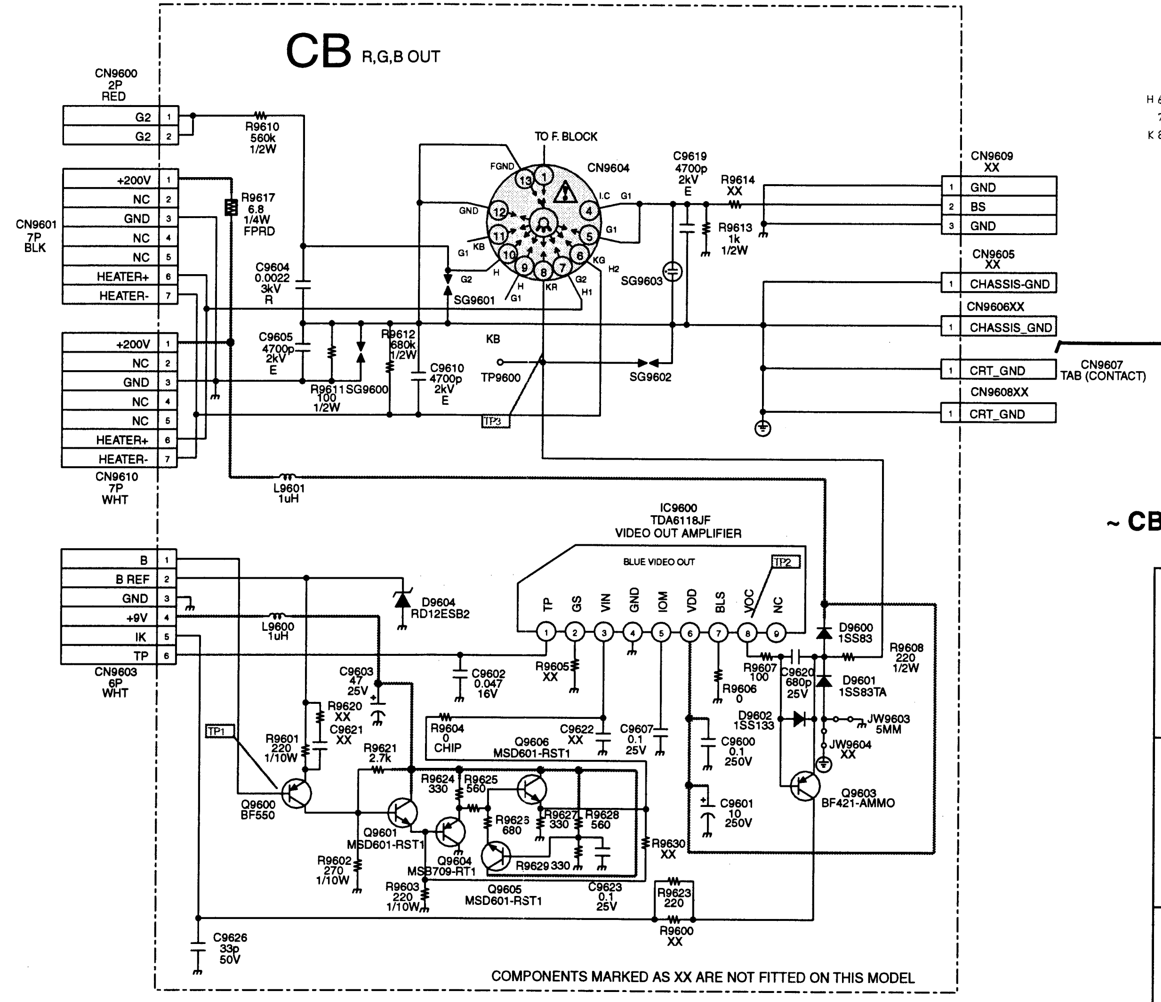


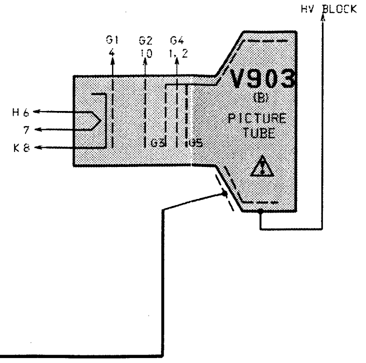
SONY
J
1-689-677-12
(1-723-217-12)


A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
1
2
3
4
5
6
7
8
9
10
J-44PX3
CN3601 21P
AV1
CN3602 21P
AV2
CN3603 21P
CN3600 8P RED
C
GND
Y/CVBS
GND
L
GND
GND
R
TO H1 BOARD CN2909
SC1-OUT-R
SC1-IN-R
SC1-OUT-L
SC1-IN-L
BLUE-1
GREEN-1
RED-1
V-OUT-1B
V-IN-1
SC2-OUT-R
SC2-IN-R
SC2-OUT-L
SC2-IN-L
BLUE-2
MODE2
GREEN-2
RED-2
BLK2
V-IN-2
SC3-OUT-R
SC3-IN-R
SC3-OUT-L
SC3-IN-L
MODE3
AV-LINK
C-IN-3
V-OUT-3B
V-IN-3
C-FRONT
Y/CVBS-FRONT
FRONT-L
FRONT-R
9V-AUDIO
SPEAKER-R
SPEAKER-L
Q2602 MSD601-RST1
Q2603 MSD601-RST1
MODE1
V-OUT-3S
CVBS/YSLAVE
C-SLAVE
V-ANALOGRF
V-OUT-1S
IC3600 CXA2149AQ-TL
Q3656 MSD601-RST1
Q3657 MSD601-RST1
Q3658 MSD601-RST1
Q2604 MSD601-RST1
AC-ON/OFF
SDA
SCL
9V
CN3604 35P WHT
V-DIGITALRF
CVBS/YMAIN
C-MAIN
CVBS/YSLAVE
C-SLAVE
BLUE-1
GREEN-1
RED-1
BLK1
GREEN-2
BLUE-2
BLK2
RED-2
L-DIGITALRF
SPEAKER-R
SPEAKER-L
R-DIGITALRF
L-ANALOGRF
R-ANALOGRF
AV-LINK
AC-ON/OFF
SDA
SCL
V-ANALOGRF
1 CVBS DIGITAL RF
2 GND1
3 CVBS/Y MAIN
4 C MAIN
5 GND 2
6 CVBS/Y SLAVE
7 C SLAVE
8 GND 3
9 BLUE 1
10 GREEN 1
11 RED 1
12 FS 1
13 GND 4
14 GREEN 2
15 BLUE2
16 BLK2
17 RED 2
18 GND5
19 L DIGITAL RF
20 R SPEAKER/HP
21 GND6
22 L SPEAKER/HP
23 R DIGITAL RF
24 GND7
25 L ANALOG RF
26 R ANALOG RF
27 +9VA
28 GND8
29 AV LINK
30 AC-ON/OFF
31 GND
32 SDA
33 SCL
34 GND9
35 CVBS ANALOG RF
TO A BOARD CN3002
COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL
J AV SCART I/O SWITCHING AND SOCKETS

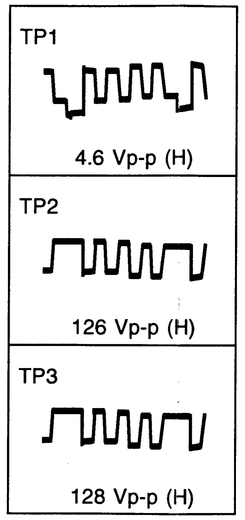
~ J Board Schematic Diagram [AV Scart, I/O Switching and Sockets] ~

~ CB Board Schematic Diagram [RGB Out] ~

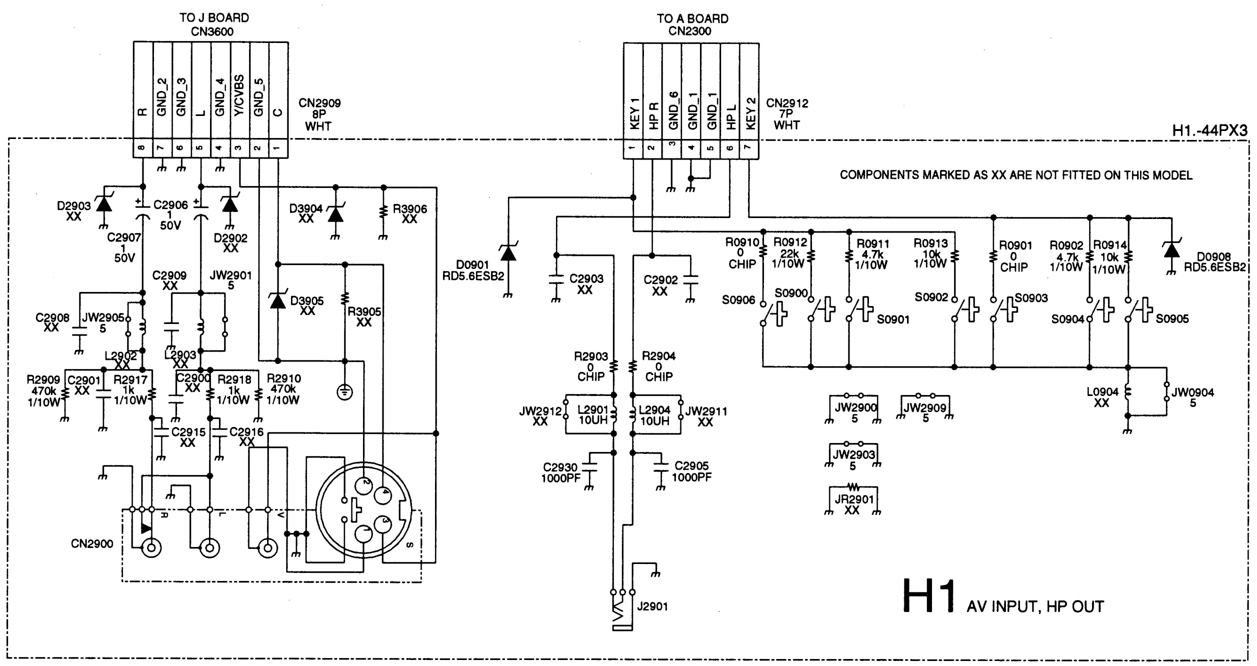

CB.-44PX3
CB R,G,B OUT
CN9600 2P RED
CN9601 7P BLK
CN9610 7P WHT
CN9603 6P WHT
CN9604
TO F. BLOCK
CN9609 XX
CN9605 XX
CN9606XX
CN9608XX
CN9607 TAB (CONTACT)
IC9600 TDA6118JF VIDEO OUT AMPLIFIER
Q9600 BF550
Q9603 BF421-AMMO
SG9600
SG9601
SG9602
SG9603
TP1
TP2
TP3
TP9600
COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL


HV BLOCK
V903 (B) PICTURE TUBE
G1 G2 G4
H 6
7
K 8

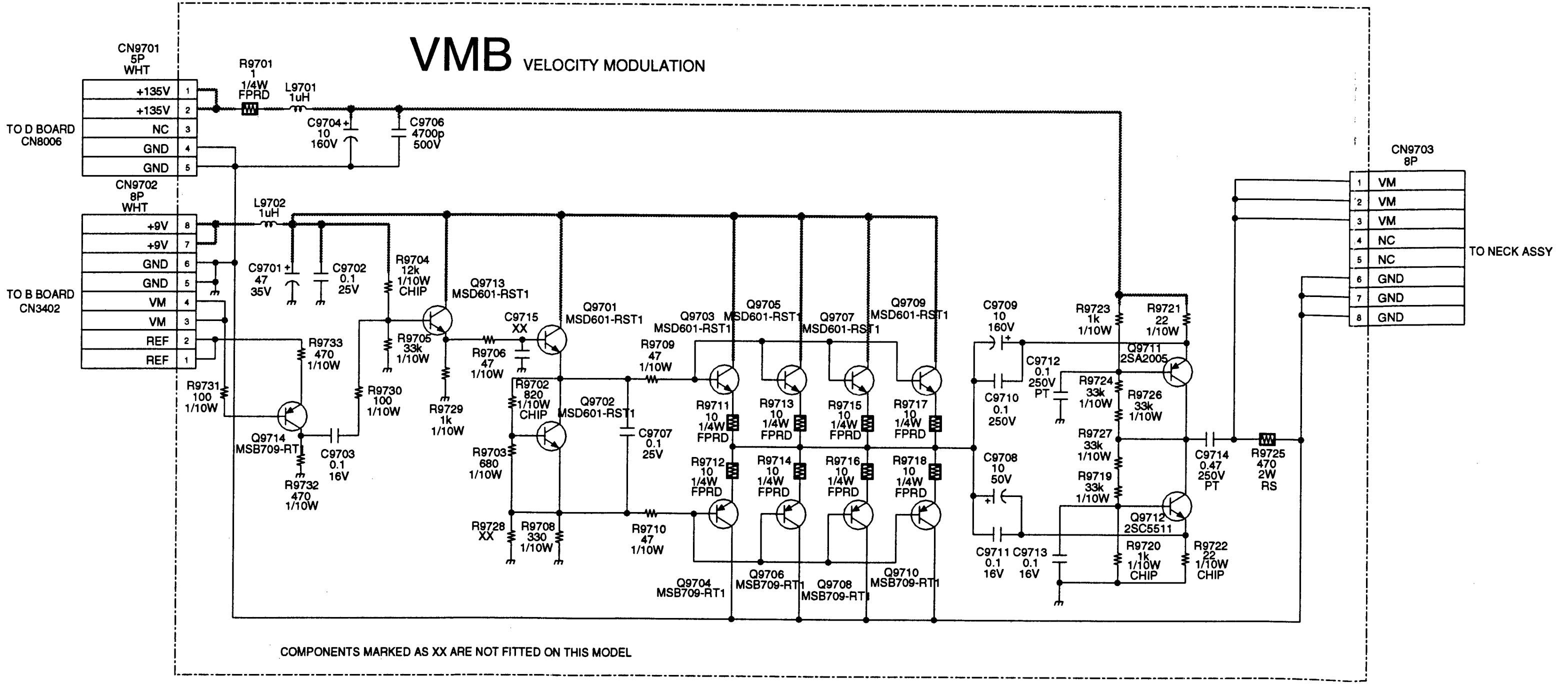
~ CB Board Waveforms ~



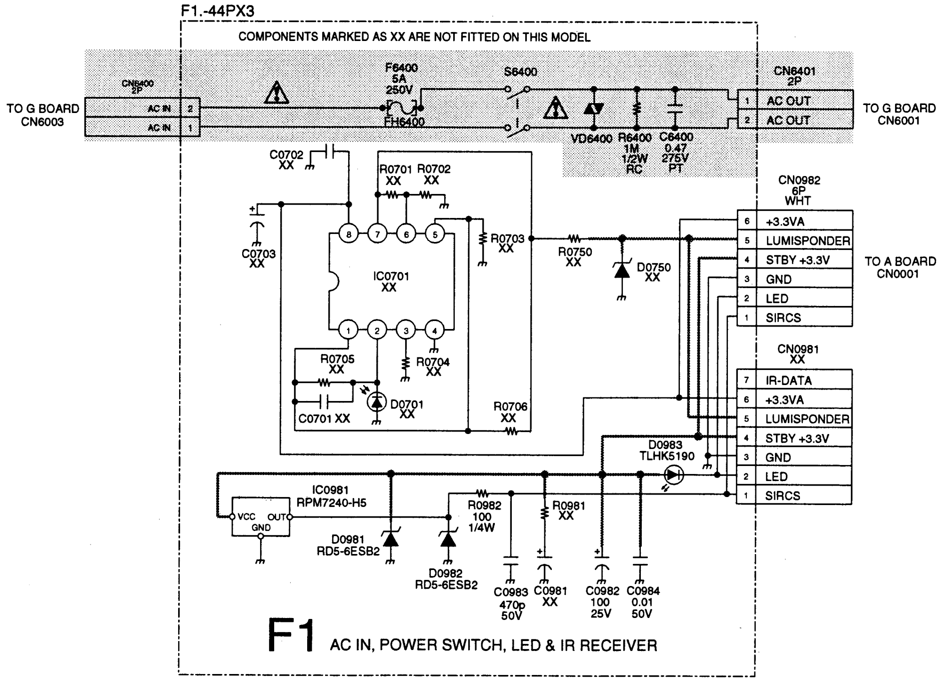
~ H1 Board Schematic Diagram [AV Input, HP Out] ~


TO J BOARD CN3600
TO A BOARD CN2300
CN2909 8P WHT
CN2912 7P WHT
H1.-44PX3
COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL
CN2900
J2901
H1 AV INPUT, HP OUT

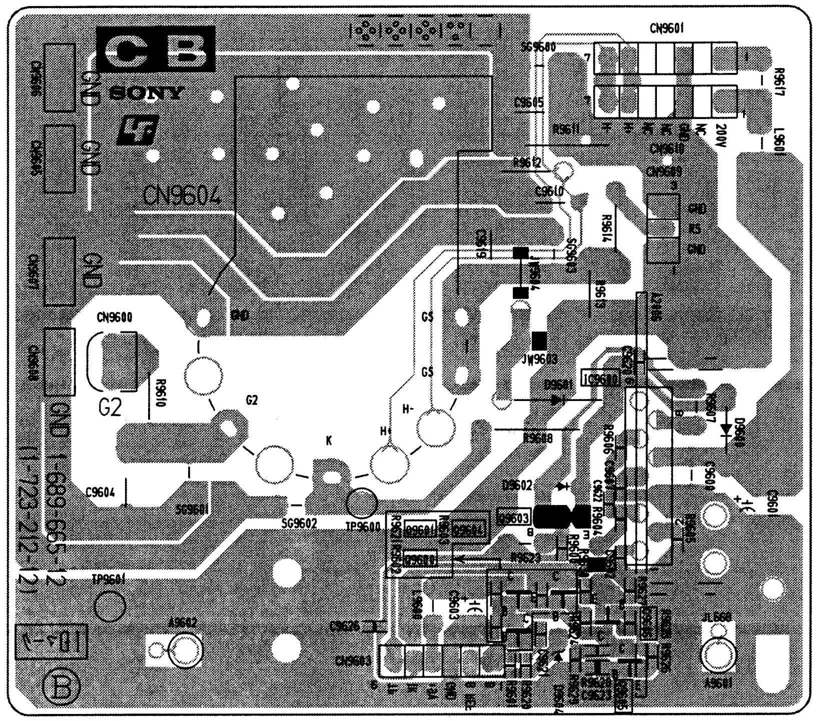
~ VMB Board Schematic Diagram [Velocity Modulation] ~


VMB-44PX3
VMB VELOCITY MODULATION
CN9701 5P WHT
TO D BOARD CN8006
CN9702 8P WHT
TO B BOARD CN3402
CN9703 8P
TO NECK ASSY
COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL

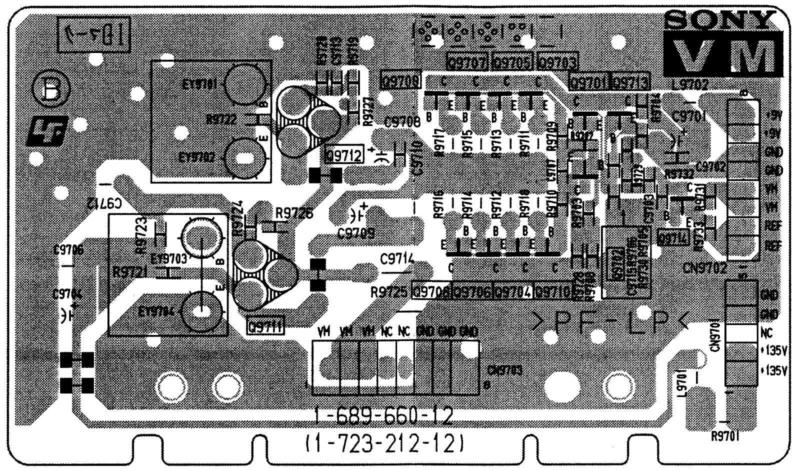
~ F1 Board Schematic Diagram [AC In, Power Switch, LED & IR Receiver] ~


F1.-44PX3
COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL
TO G BOARD CN6003
CN6401 2P
TO G BOARD CN6001
CN0982 6P WHT
TO A BOARD CN0001
CN0981 XX
IC0701 XX
IC0981 RPM7240-H5
D0983 TLHK5190
F1 AC IN, POWER SWITCH, LED & IR RECEIVER

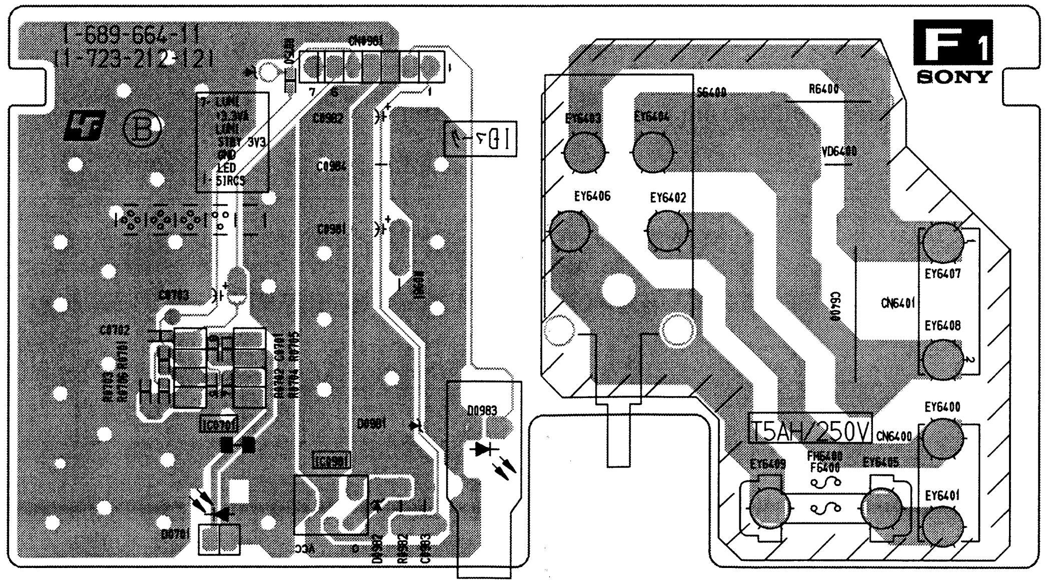
~ CB Printed Wiring Board Conductor side ~


CB
SONY
CN9604
CN9601
CN9600
G2
GND
1-689-665-12
(1-723-212-12)

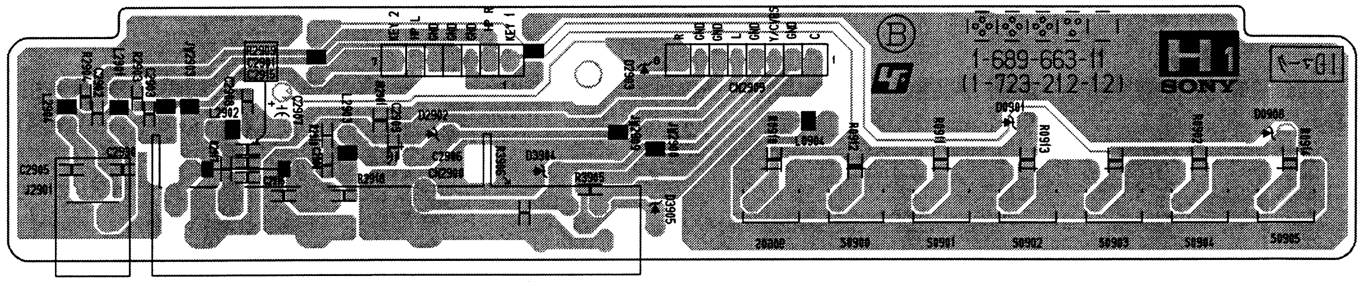
~ VMB Printed Wiring Board Conductor side ~


SONY
VM
CN9702
CN9703
1-689-660-12
(1-723-212-12)

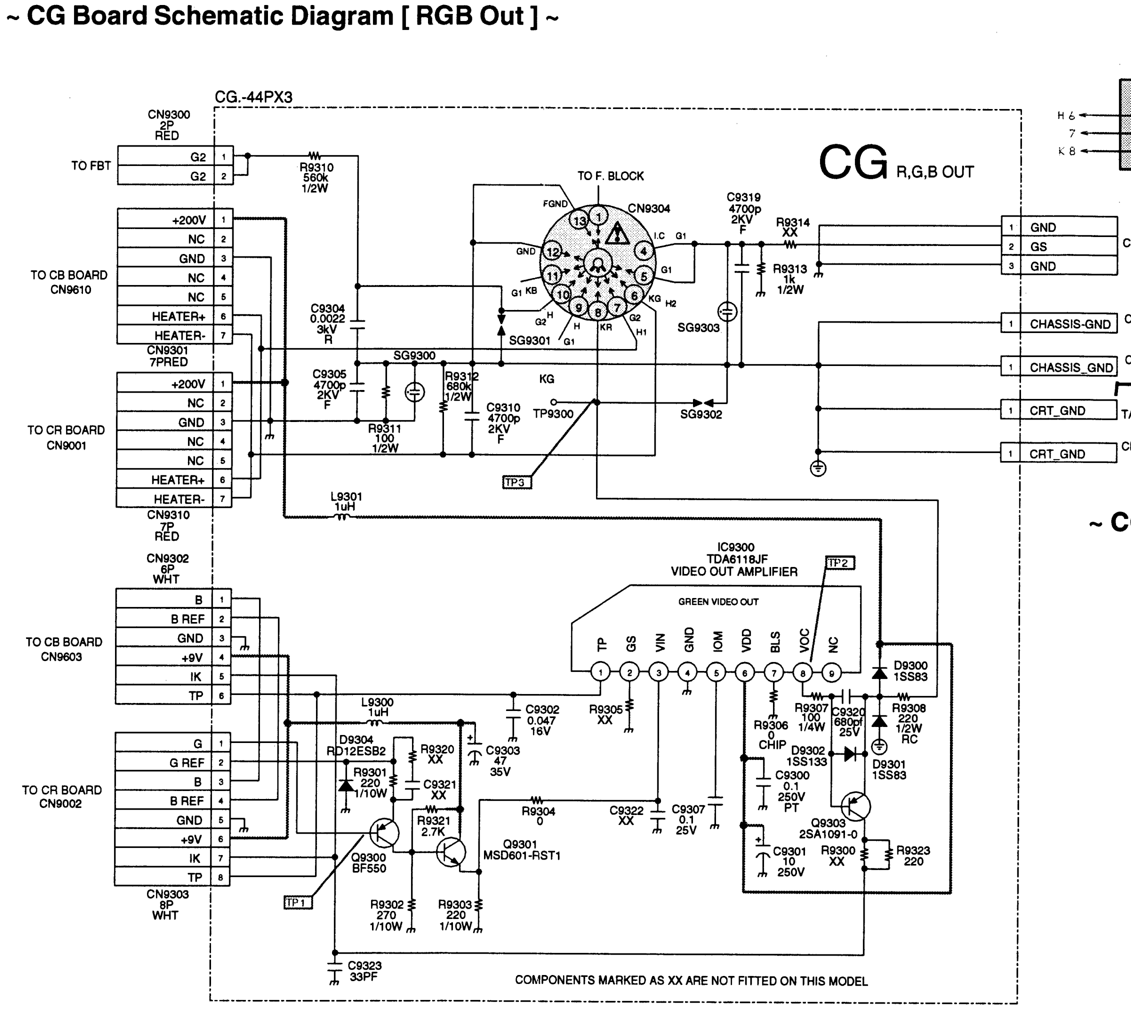
~ F1 Printed Wiring Board Conductor side ~


1-689-664-11
(1-723-212-12)
F1
SONY
CN0981
CN6401
CN6400
T5AH/250V

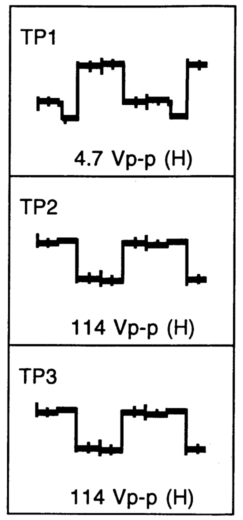
~ H1 Printed Wiring Board Conductor side ~


1-689-663-11
(1-723-212-12)
H1
SONY
CN2909

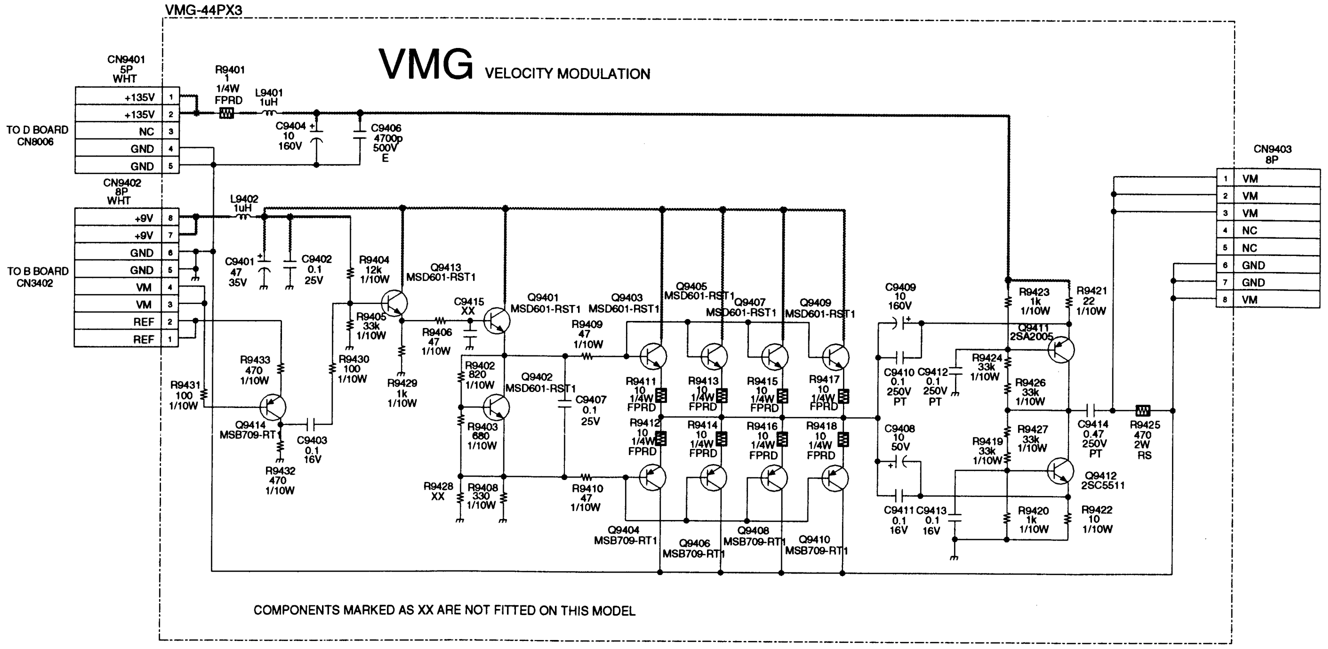
~ CG Board Schematic Diagram [RGB Out] ~


CG-44PX3
CG R,G,B OUT
TO FBT
TO CB BOARD CN9610
TO CR BOARD CN9001
TO CB BOARD CN9603
TO CR BOARD CN9002
TO F. BLOCK
CN9304
IC9300
TDA6118JF
VIDEO OUT AMPLIFIER
GREEN VIDEO OUT
SG9300
SG9301
SG9302
SG9303
TP9300
TP1
TP2
TP3
Q9300 BF550
Q9301 MSD601-RST1
Q9303 2SA1091-0
V902 (G) PICTURE TUBE
HV BLOCK
CN9309
CN9305
CN9306
CN9307 TAB(CONTACT)
CN9308
COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL

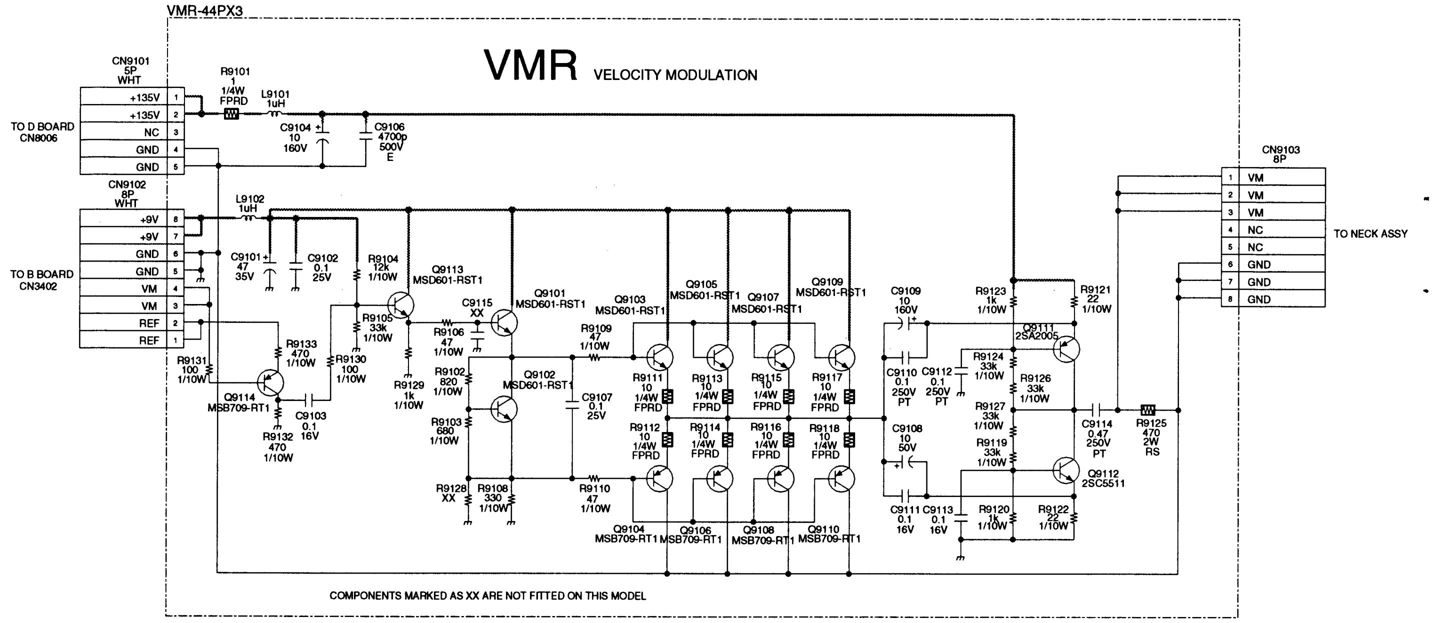
~ CG Board Waveforms ~



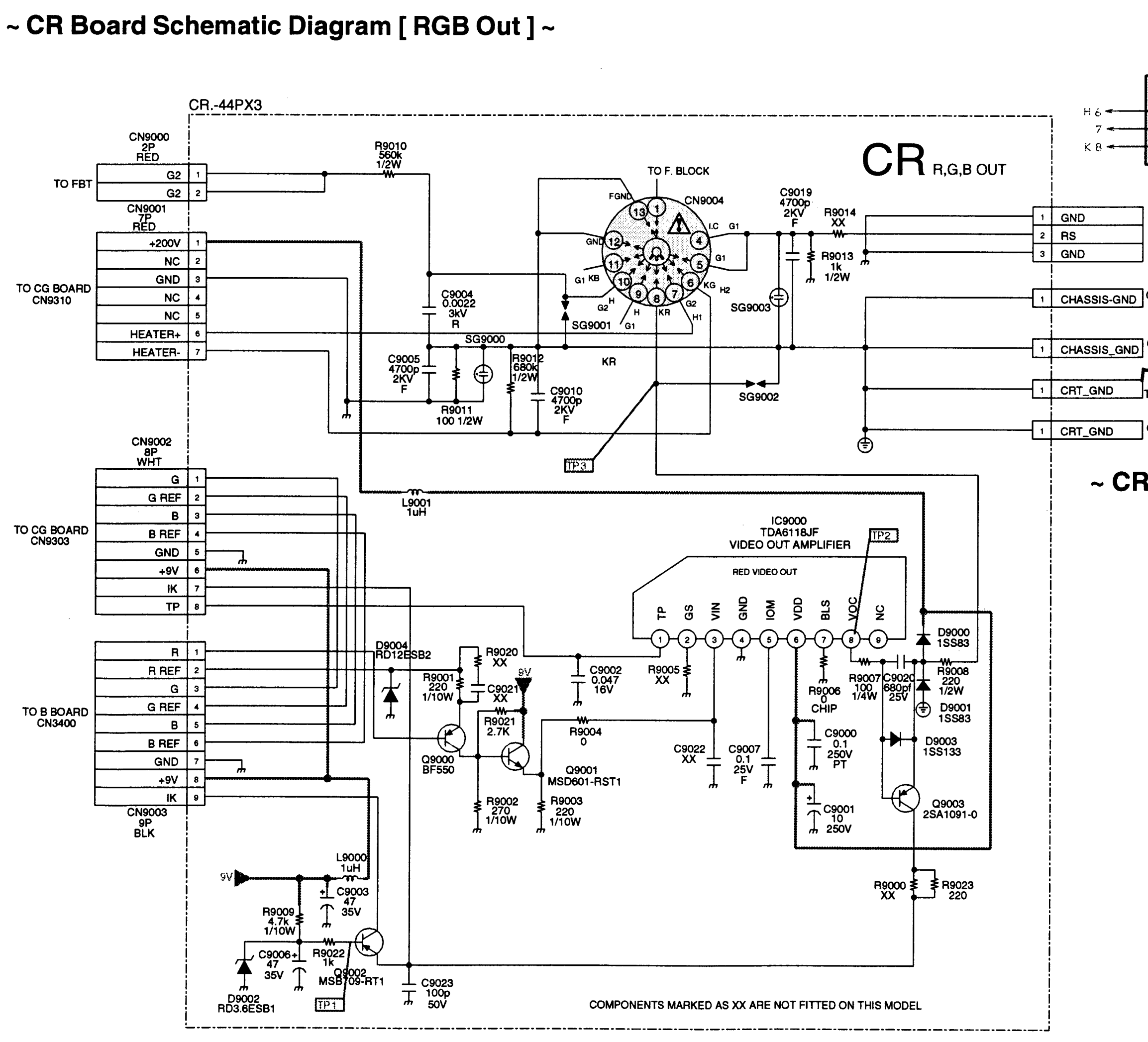
~ VMG Board Schematic Diagram [Velocity Modulation] ~


VMG-44PX3
VMG VELOCITY MODULATION
TO D BOARD CN8006
TO B BOARD CN3402
CN9401
CN9402
CN9403
TO NECK ASSY
Q9411 2SA2005
Q9412 2SC5511
COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL

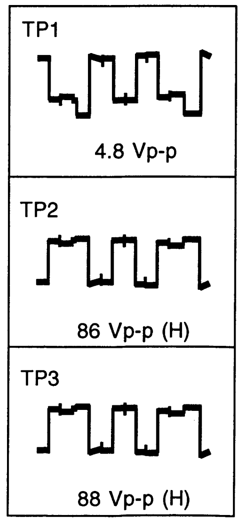
~ VMR Board Schematic Diagram [Velocity Modulation] ~


VMR-44PX3
VMR VELOCITY MODULATION
TO D BOARD CN8006
TO B BOARD CN3402
CN9101
CN9102
CN9103
TO NECK ASSY
Q9111 2SA2005
Q9112 2SC5511
COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL

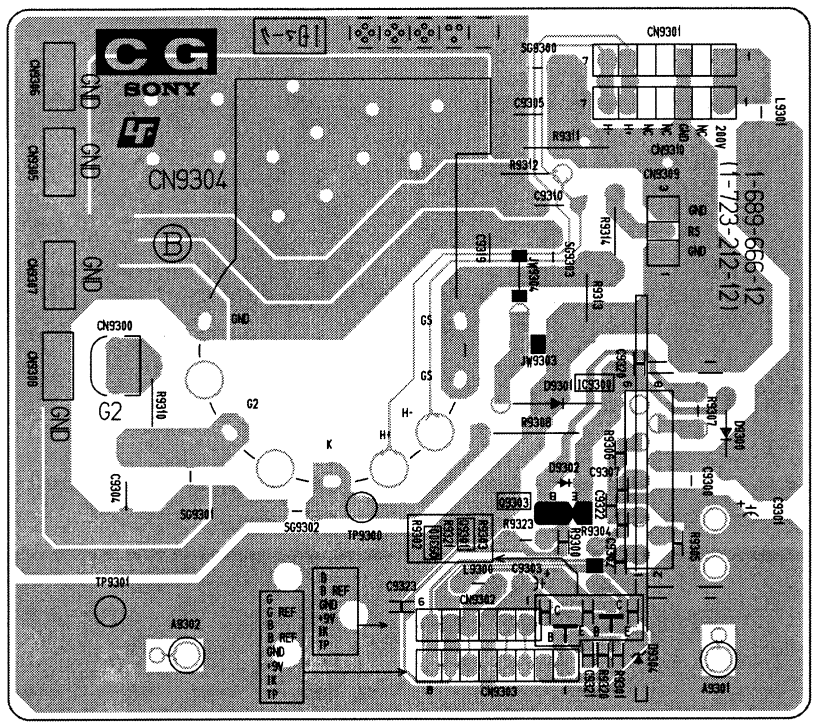
~ CR Board Schematic Diagram [RGB Out] ~


CR-44PX3
CR R,G,B OUT
TO FBT
TO CG BOARD CN9310
TO CG BOARD CN9303
TO B BOARD CN3400
TO F. BLOCK
CN9004
IC9000
TDA6118JF
VIDEO OUT AMPLIFIER
RED VIDEO OUT
SG9000
SG9001
SG9002
SG9003
Q9000 BF550
Q9001 MSD601-RST1
Q9002 MSB709-RT1
Q9003 2SA1091-0
V901 (R) PICTURE TUBE
HV BLOCK
CN9009
CN9005
CN9006
CN9007 TAB(CONTACT)
CN9008
COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL

~ CR Board Waveforms ~

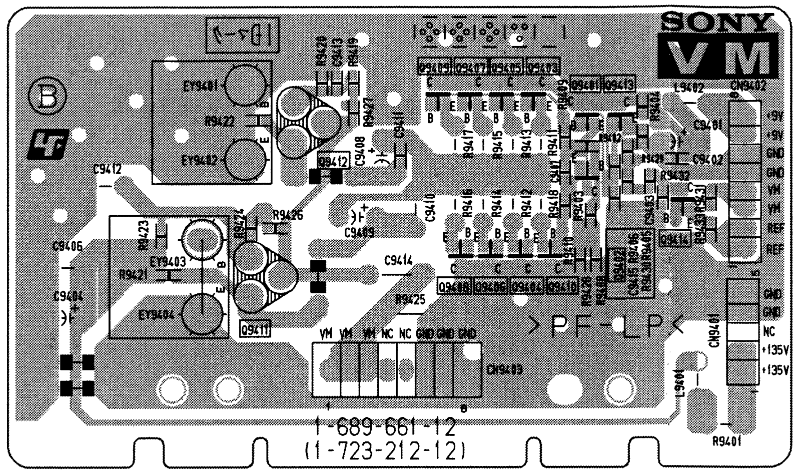


~ CG Printed Wiring Board Conductor side ~



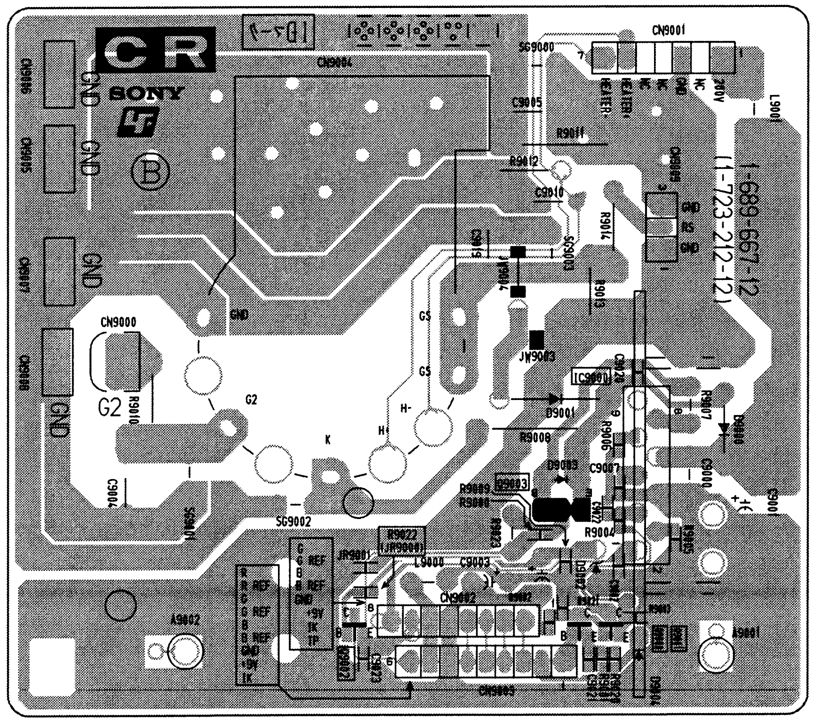
CG
SONY
CN9304
CN9301
CN9300
CN9305
CN9306
CN9307
CN9310
CN9302
CN9303
GND
G2
R9310
C9304
SG9301
SG9302
SG9300
TP9300
TP9301
A9302
A9301
C9305
R9311
R9312
C9310
C9319
R9314
R9313
JW9303
D9301
IC9301
R9308
D9302
C9307
Q9303
R9323
R9304
L9300
C9323
C9303
C9308
C9309
R9307
D9300
L9301
G REF
B REF
GND
+9V
IK
TP
H-
H+
K
G5
200V
1-689-666-12
(1-723-212-12)

~ VMG Printed Wiring Board Conductor side ~



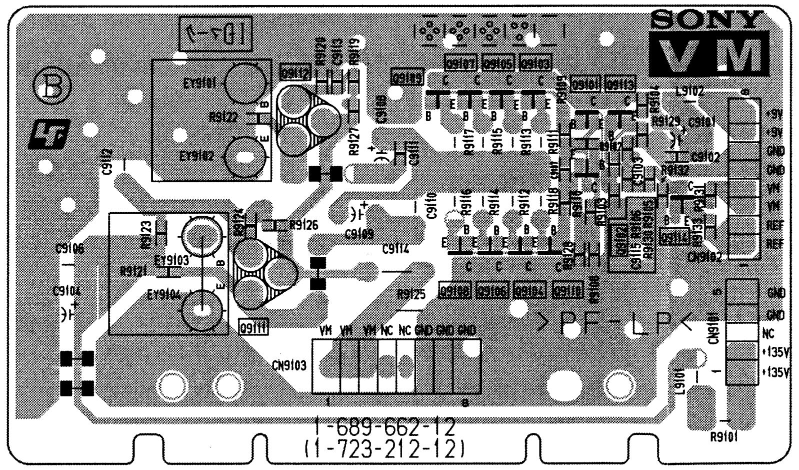
SONY
VM
EY9401
EY9402
EY9403
EY9404
R9422
R9421
R9423
R9424
R9425
R9426
C9412
C9406
C9404
C9409
C9414
C9411
C9401
C9402
Q9411
Q9412
L9402
CN9402
CN9401
CN9403
L9401
R9401
VM
NC
GND
+9V
REF
+135V
>PF-LP<
1-689-661-12
(1-723-212-12)

~ CR Printed Wiring Board Conductor side ~



CR
SONY
CN9004
CN9001
CN9000
CN9005
CN9006
CN9007
CN9008
CN9002
CN9003
GND
G2
R9010
C9004
SG9002
SG9000
A9002
A9001
C9005
R9011
R9012
C9010
C9019
R9014
R9013
JW9003
IC9001
D9001
R9008
D9003
C9007
Q9003
R9009
R9022
JP9001
JP9000
L9000
C9003
R9007
D9000
C9006
C9009
L9001
HEATER
NC
200V
R REF
G REF
B REF
GND
+9V
IK
TP
H-
H+
K
G5
1-689-667-12
(1-723-212-12)

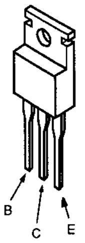
~ VMR Printed Wiring Board Conductor side ~



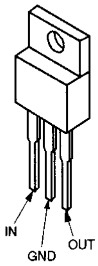
SONY
VM
EY9101
EY9102
EY9103
EY9104
R9122
R9121
R9123
R9124
R9125
R9126
C9112
C9106
C9104
C9109
C9114
C9110
C9101
C9102
Q9111
L9102
CN9102
CN9101
CN9103
L9101
R9101
VM
NC
GND
+9V
REF
+135V
>PF-LP<
1-689-662-12
(1-723-212-12)

7-5. SEMICONDUCTORS

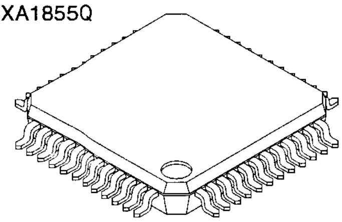
BA033T



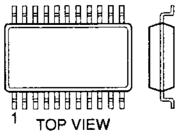
BA05T



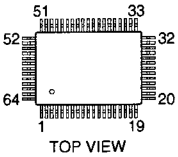
CXA1855Q



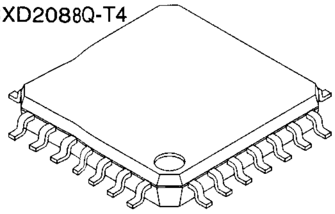
CXA1875AM-T4
LM358D
NJM3403AM
TDA2822D013TR



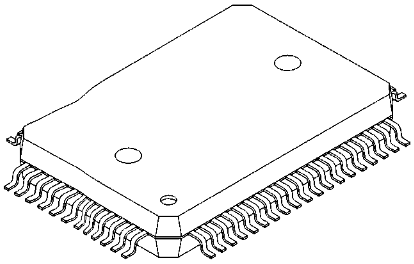
CXA2149AQ-TL


51
33
52
32
64
20
1
19
TOP VIEW

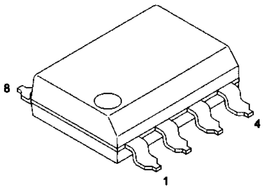
CXD2088Q-T4



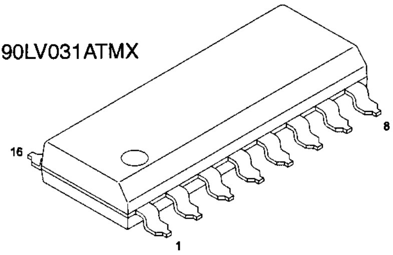
CXD9761Q



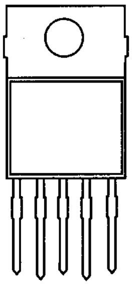
DS90LV017ATMX
DS90LV018ATMX



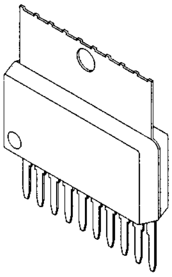
DS90LV031ATMX



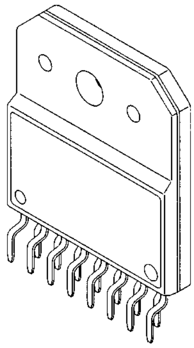
LA6500-FA



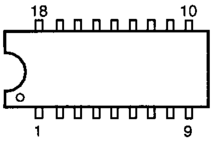
LA6510



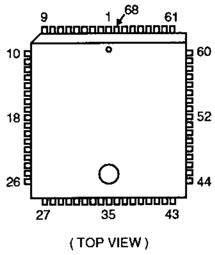
LM1876TF



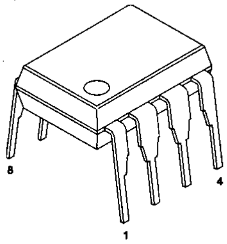
MCZ3001D
MCZ3001DA



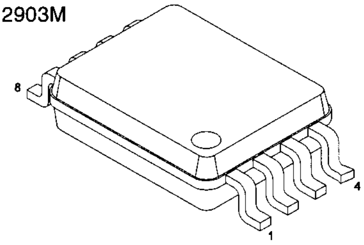
MSP3411G-QA-B11


9
1
68
61
10
60
18
52
26
44
27
35
43
(TOP VIEW)

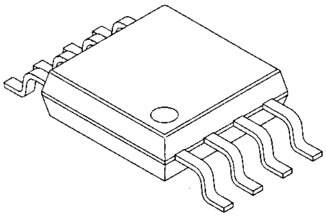
NJM082M



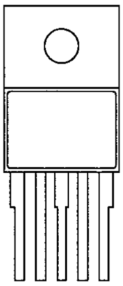
NJM2903M



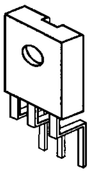
NJM2904M



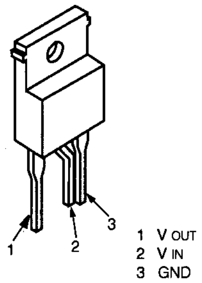
PQ1CG2032FZ



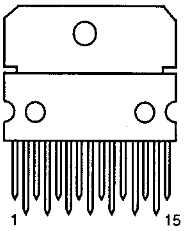
SBX3081-51(30)



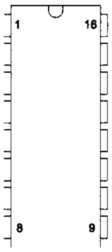
SE135N-LF4


1
2
3
1 V OUT
2 V IN
3 GND

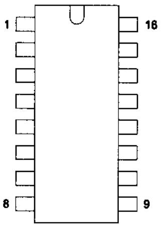
TDA7482



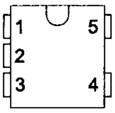
SN65LVDS32DR



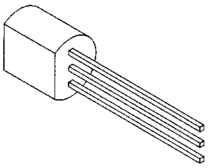
TDA8601T



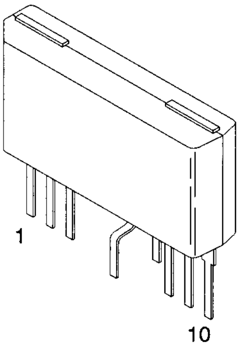
SN74CBTLV1G125DCKR



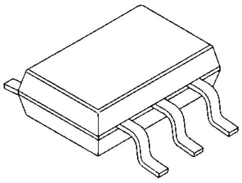
TL1431CZ-AP



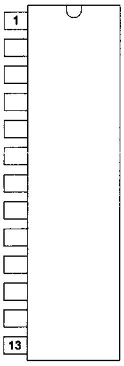
STR-L474-LF429



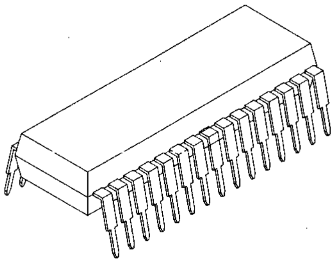
TLV431AIDBV



TDA6120Q/N2/S1

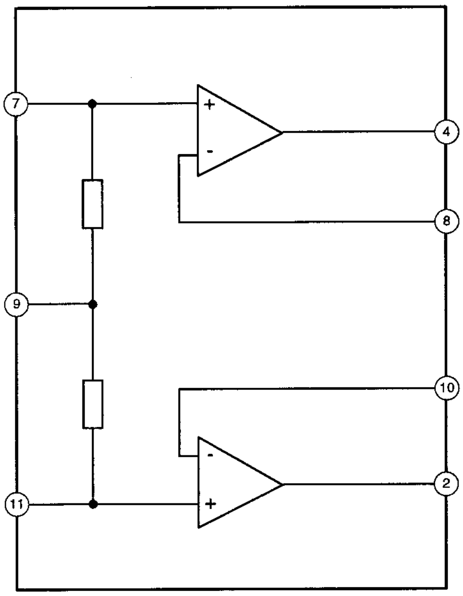


UPC1898CT-A

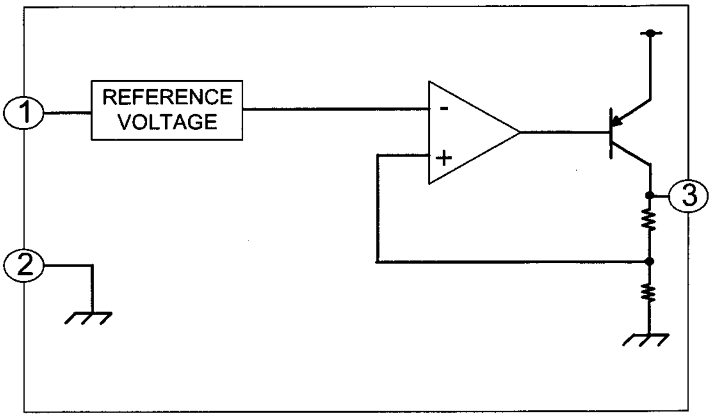


7-6 IC BLOCK DIAGRAMS

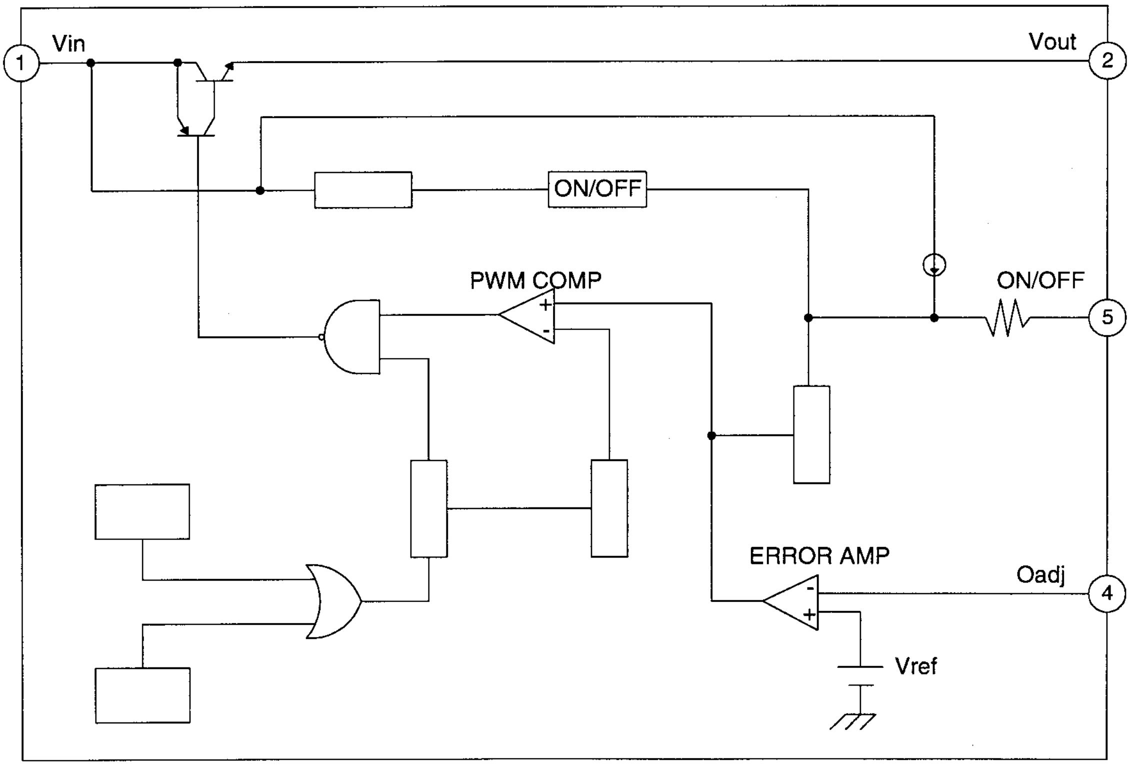
A BOARD IC2500 TDA7265



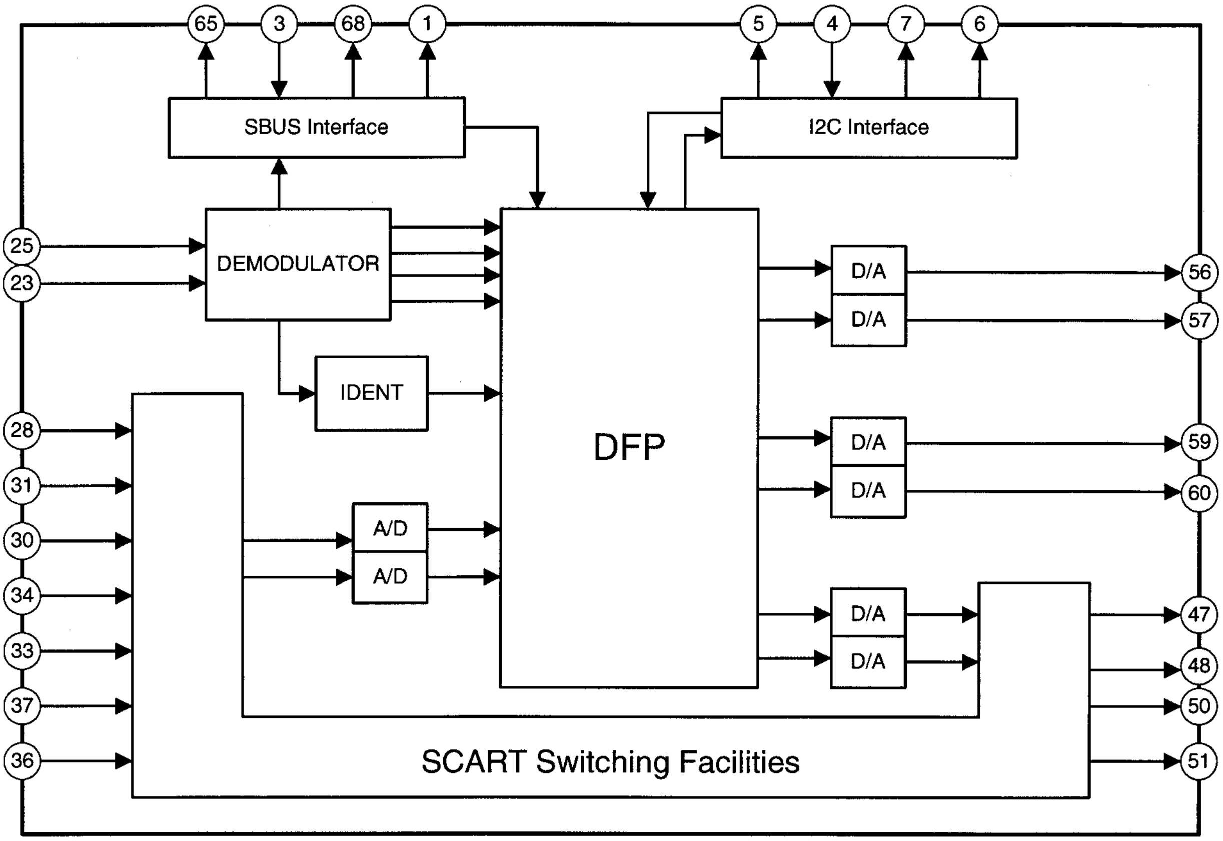
A BOARD IC6201/IC6210 BA033T


1
REFERENCE VOLTAGE
-
+
3
2

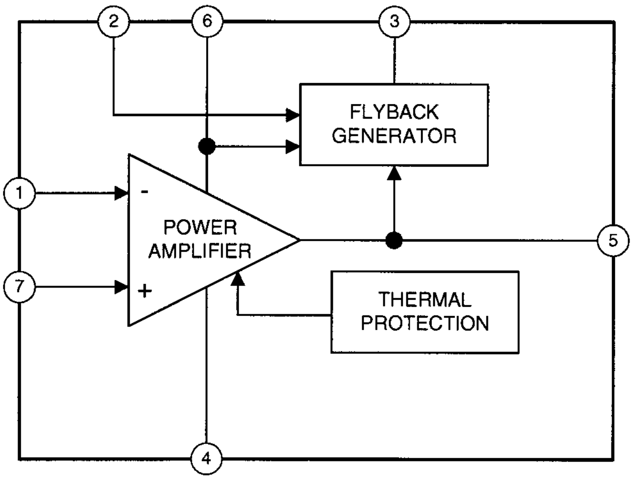
A BOARD IC6202 PQ1CG2032FZ


1
Vin
Vout
2
ON/OFF
PWM COMP
ON/OFF
5
ERROR AMP
Oadj
4
Vref

A BOARD IC2000 MSP3411G


65
3
68
1
5
4
7
6
SBUS Interface
I2C Interface
25
23
DEMODULATOR
IDENT
DFP
28
31
30
34
33
37
36
A/D
A/D
D/A
D/A
D/A
D/A
D/A
D/A
56
57
59
60
47
48
50
51
SCART Switching Facilities

D BOARD IC8003 STV9379


2
6
3
FLYBACK
GENERATOR
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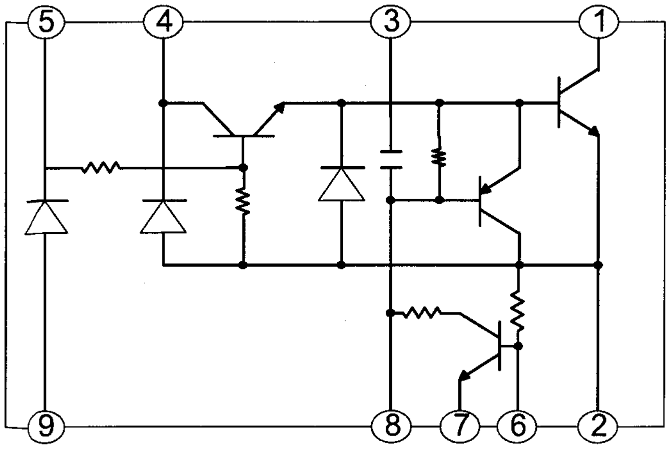
7
-
+
POWER
AMPLIFIER
5
THERMAL
PROTECTION
4

G BOARD IC6004 SE135N-LF4



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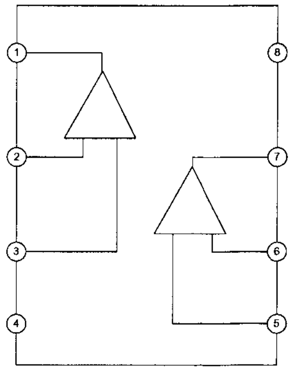

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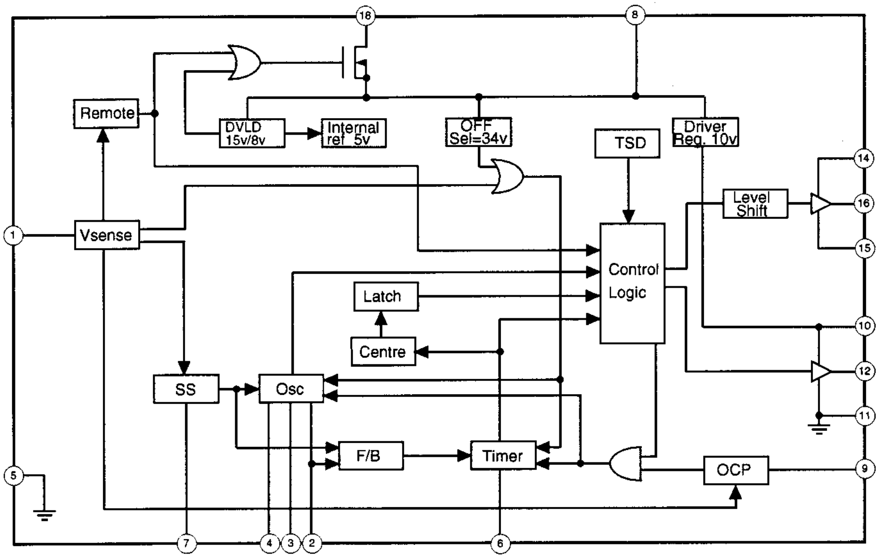
18
8
Remote
DVLD
15v/8v
Internal
ref 5v
OFF
Sel=34v
TSD
Driver
Reg. 10v
14
Level
Shift
16
15
1
Vsense
Control
Logic
Latch
Centre
10
12
11
SS
Osc
F/B
Timer
OCP
9
5
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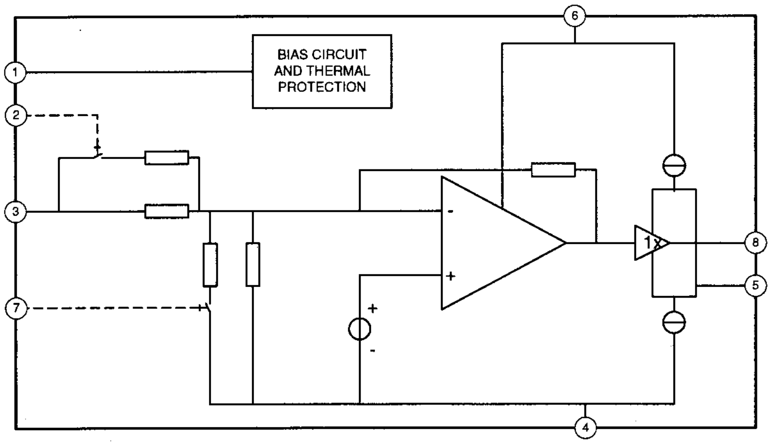
6

CR BOARD IC9000
CG BOARD IC9300
CB BOARD IC9600
TDA6118JF


6
BIAS CIRCUIT
AND THERMAL
PROTECTION
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+
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SECTION 8
EXPLODED VIEWS

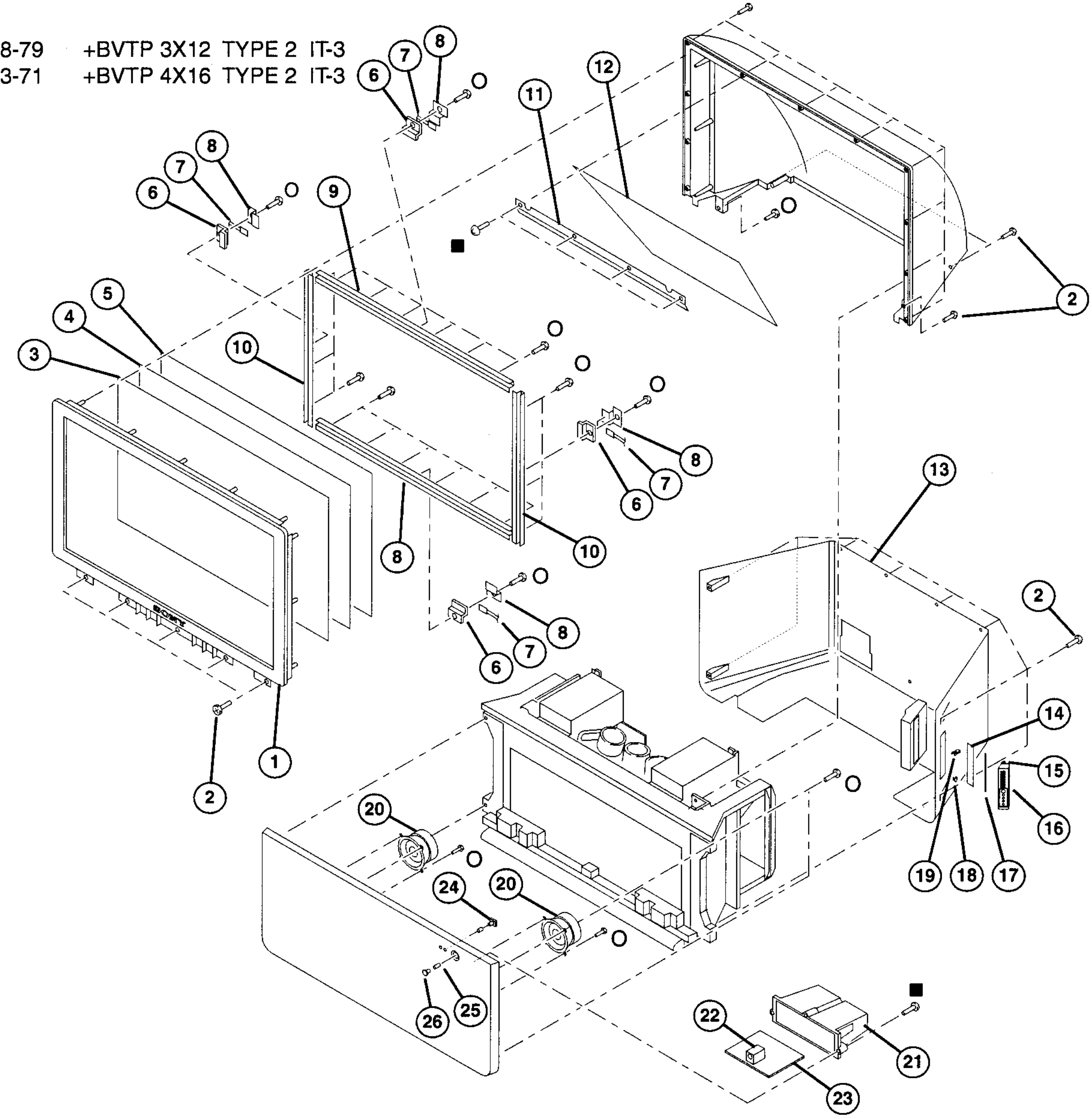
NOTE :

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

8-1. SCREEN AND COVER BLOCK

■ : 7-685-648-79 +BVTP 3X12 TYPE 2 IT-3
O : 7-685-663-71 +BVTP 4X16 TYPE 2 IT-3

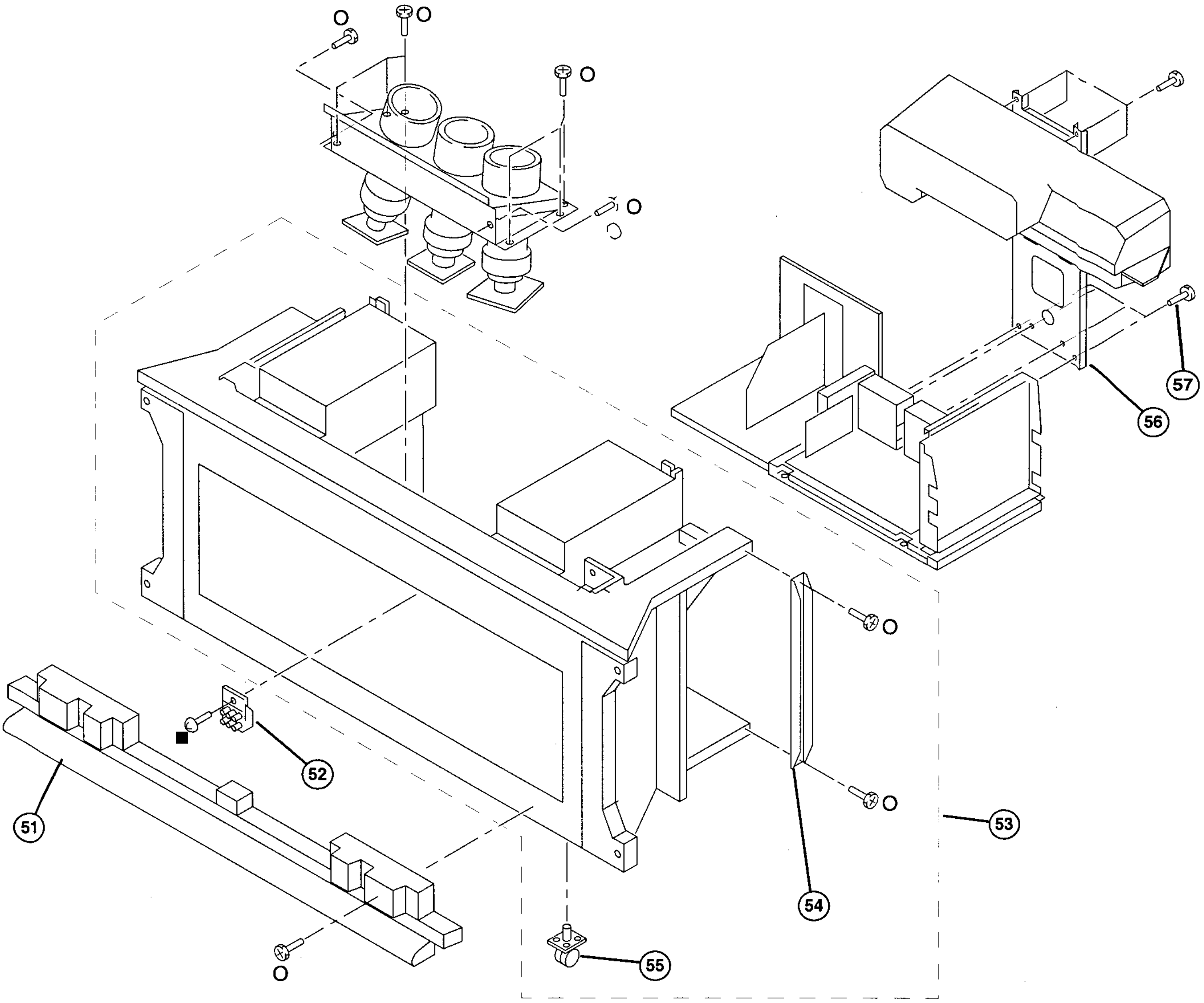


REF.NO.	PART.NO	DESCRIPTION	REMARK
1	*X-4043-086-1	BEZEL ASSY	
2	7-685-663-79	SCREW+BVTP 4X16 TYPE2 IT-3	
3	4-084-654-01	SCREEN (44W), CONTRAST	
4	4-081-956-02	PLATE (44WF), DIFFUSION	
5	4-081-955-01	PLATE (44WL), DIFFUSION	
6	*4-205-155-01	COVER, SENSOR	
7	1-528-864-11	BATTERY, SOLAR	
8	*4-063-173-01	HOLDER, SENSOR	
9	*4-095-379-21	HOLDER, SCREEN	
10	*4-095-379-31	HOLDER, SCREEN	
11	*4-095-376-11	HOLDER, TOP MIRROR	
12	4-102-593-01	MIRROR (44)	
13	*4-102-595-01	COVER (44), REAR	
14	*A-1405-594-A	H1 BOARD, COMPLETE	
15	*4-205-682-01	DAMPER	
16	4-095-371-11	DOOR	
17	4-095-363-01	BRACKET, DOOR	
18	4-095-381-01	SPRING, DOOR	
19	4-047-464-01	CATCHER, PUSH	
20	1-825-555-11	LOUDSPEAKER (13CM)	
21	*4-095-364-01	BRACKET F	
22 ⚠	1-571-433-21	SWITCH, PUSH (AC POWER)	
23	*A-1410-989-A	F1 BOARD, COMPLETE	
24	4-095-373-01	GUIDE, LIGHT (MAIN)	
25	4-205-828-01	SPRING	
26	4-095-365-01	BUTTON, POWER	

8-2. CABINET BLOCK

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

■ : 7-685-648-79 +BVTP 3X12 TYPE 2 IT3
O : 7-685-663-79 +BVTP 4X16 TYPE 2 IT3

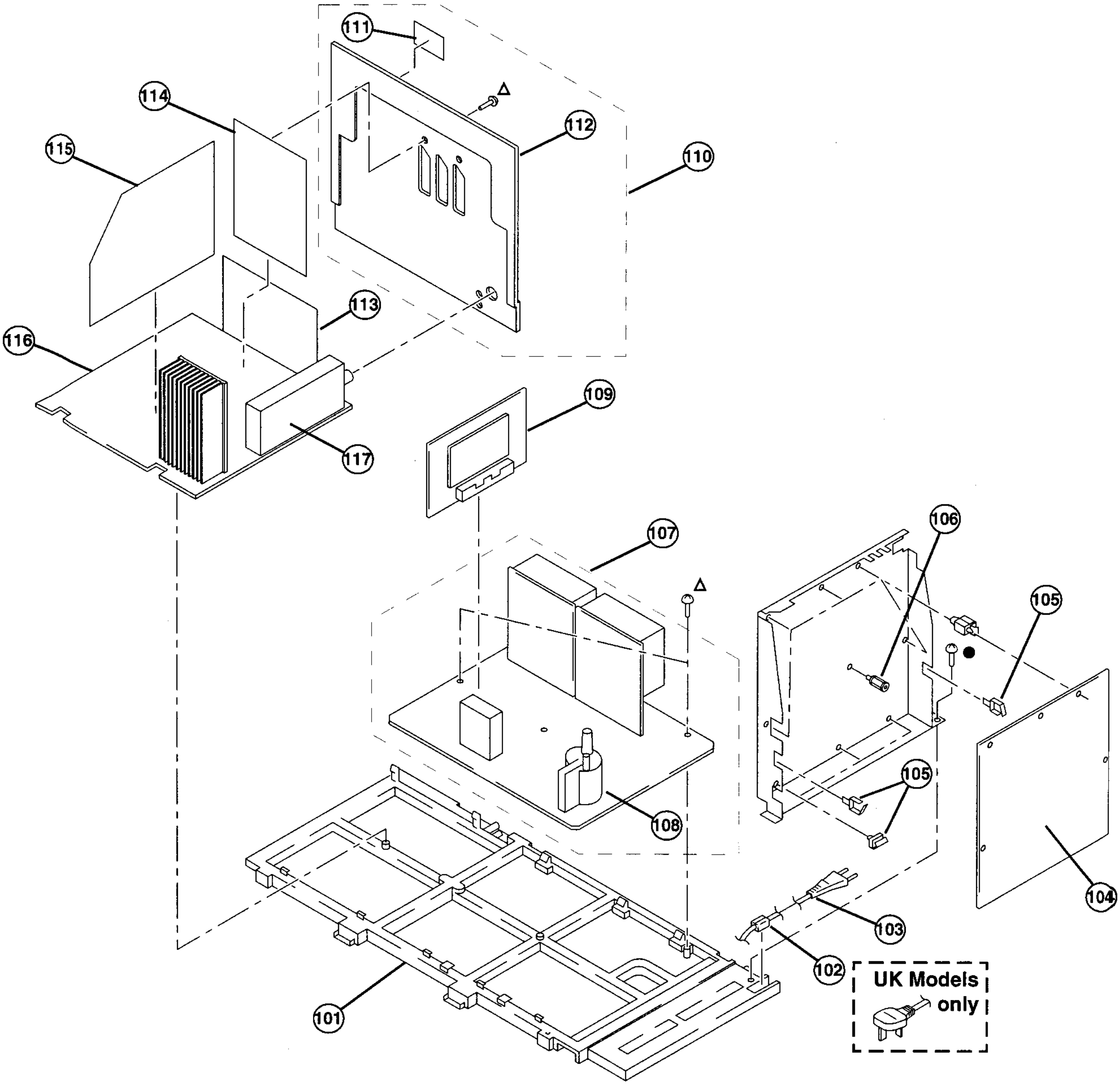


REF.NO.	PART.NO	DESCRIPTION	REMARK
51	4-102-592-01	SKIRT, (44) PAINTED FRONT	
52 ⚠	1-223-925-82	RESISTOR ASSY (HIGH-VOLTAGE)	
53	*X-4041-764-1	CABINET ASSY	54-55
54	*4-095-349-01	BRACKET, DRAINAGE	
55	4-075-244-01	CASTOR (30 DIA.)	
56	*4-095-347-01	BRACKET, REINFORCEMENT	
57	7-685-663-71	SCREW +BVTP 4X16 TYPE2 IT-3	

8-3. MAIN BRACKET BLOCK

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

△ : 7-685-648-79 +BVTP 3X12 TYPE 2 IT3
● : 7-685-663-79 +BVTP 4X16 TYPE 2 IT3

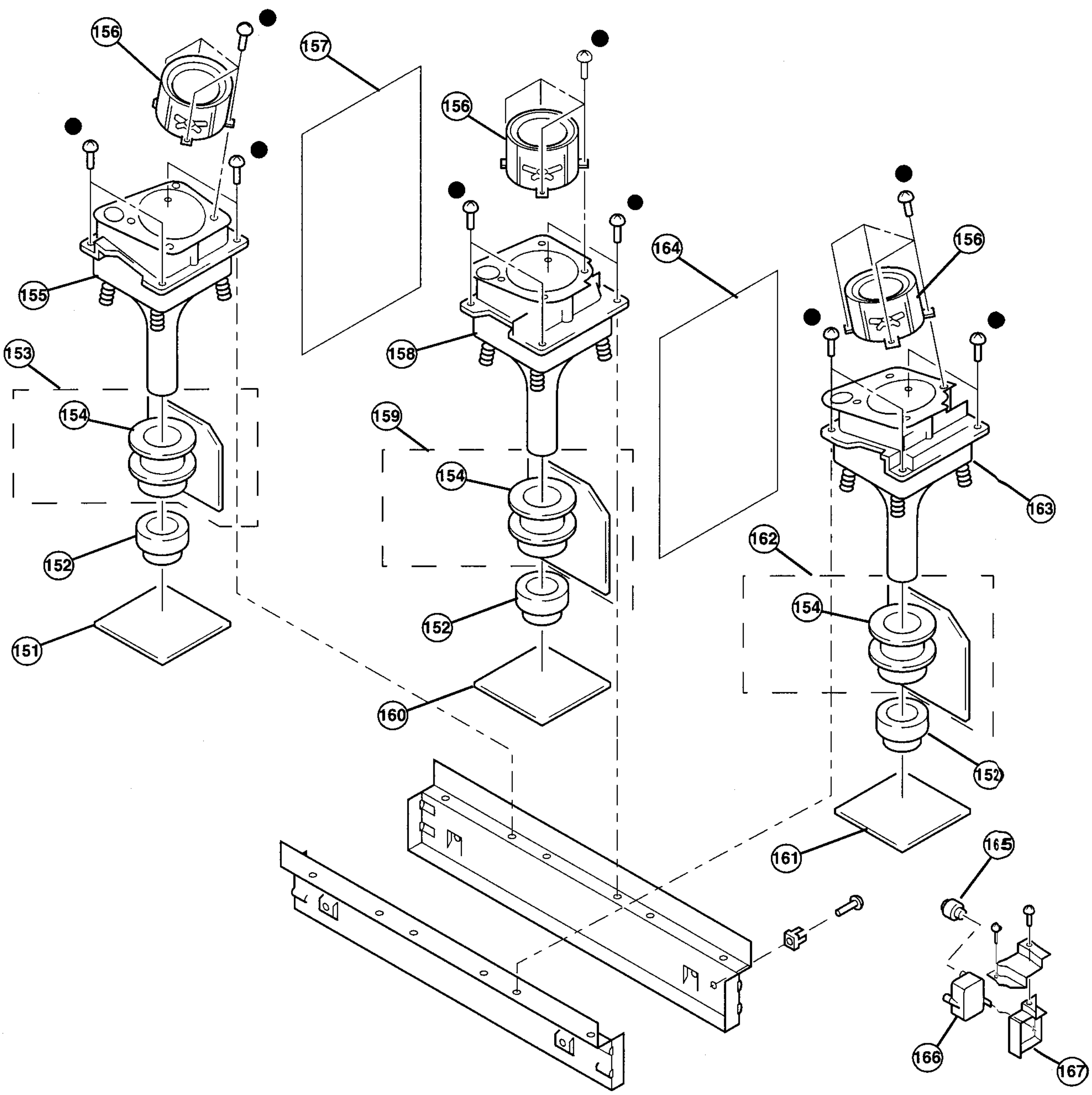


REF.NO.	PART.NO	DESCRIPTION	REMARK
101	*4-095-352-01	BRACKET, MAIN	
102	4-202-531-01	AC CORD LOCK (SC)	
103	⚠ 1-776-860-11	POWER CORD, FILTER (UK)	
104	*A-1302-325-A	G BOARD, COMPLETE	
105	*4-316-015-00	HOLDER, WIRE	
106	*4-046-677-11	HOLDER (B), PWB	
107	*A-1302-329-A	D BOARD, COMPLETE	108
108	⚠ 1-453-285-41	TRANSFORMER ASSY, FLYBACK (NX-4006//M3P4)	
109	*A-1302-326-A	AD BOARD, COMPLETE	
110	X-4042-814-1	BOARD, TERMINIAL ASSY	111-112
111	4-206-388-21	SERVICE PLATE	
112	4-095-353-01	BOARD TERMINAL	
113	*4-100-801-01	SUPPORTER, J	
114	*A-1302-330-A	J BOARD, COMPLETE	
115	*A-1302-952-A	B BOARD, COMPLETE	
116	*A-1302-951-A	A BOARD, COMPLETE	
117	*8-598-535-20	FRONT END BTF-EF411	

8-4. PICTURE TUBE BLOCK

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

● : 7-685-663-71 +BVTP 4X16 TYPE 2 IT3


156
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REF.NO.		PART.NO	DESCRIPTION	REMARK
151		*A-1405-595-A	CR BOARD, COMPLETE	
152	⚠	1-451-535-14	COIL ASSY VM	
153		*A-1405-599-A	VMR BOARD, COMPLETE	154
154	⚠	1-451-536-31	DEFLECTION YOKE	
155	⚠	A-1606-795-A	COUPLER (R) ASSY, CRT	
156		4-083-752-01	LENS (DELTA 240)	
157		4-096-118-02	SHADE (51-R)	
158	⚠	A-1606-801-A	COUPLER (G) ASSY, CRT	
159		*A-1405-598-A	VMG BOARD, COMPLETE	154
160		*A-1405-597-A	CG BOARD, COMPLETE	
161		*A-1405-596-A	CB BOARD, COMPLETE	
162		*A-1405-600-A	VMB BOARD, COMPLETE	154
163	⚠	A-1606-792-A	COUPLER (B) ASSY, CRT	
164		4-096-119-02	SHADE (51-G)	
165		4-373-137-01	CAP (Z), RUBBER	
166	⚠	8-598-955-32	BLOCK ASSY, HV HVB-1031	
167		*4-063-176-01	HOLDER, HVR	

SECTION 9
ELECTRICAL PARTS LIST

PARTS LISTING TABLE OF CONTENTS

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REMOTE COMMANDER : 100

Note : Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
Parts indicated (XX) on the Schematic Diagram are not used in this model and therefore do not appear in the Parts List.

Note : The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

* A-1405-595-A CR Board Complete

REF.NO.	PART.NO	DESCRIPTION	REMARK
	* 4-102-022-01	PIN(30), WIRE	
	4-382-854-01	SCREW (M3X8), P, SW (+)	

< CAPACITOR >

REF.NO.	PART.NO	DESCRIPTION	REMARK
C9000	1-136-189-00	MYLAR 0.1UF	10.00% 250V
C9001	1-107-652-11	ELECT 10UF	20.00% 250V
C9002	1-165-176-11	CERAMIC CHIP 0.047UF	10.00% 16V
C9003	1-126-947-11	ELECT 47UF	20.00% 35V
C9004	1-117-216-51	CERAMIC 0.0022UF	10.00% 3KV
C9005	1-115-350-51	CERAMIC 0.0047UF	2KV
C9006	1-126-947-11	ELECT 47UF	20.00% 35V
C9007	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9010	1-115-350-51	CERAMIC 0.0047UF	2KV
C9019	1-115-350-51	CERAMIC 0.0047UF	2KV
C9020	1-115-412-11	CERAMIC CHIP 680PF	5.00% 25V
C9023	1-162-921-11	CERAMIC CHIP 33PF	5.00% 50V

< CONNECTOR >

REF.NO.	PART.NO	DESCRIPTION	REMARK
CN9000	1-785-879-11	CONNECTOR, ONE TOUCH	
CN9001	* 1-564-510-11	PLUG, CONNECTOR 7P	
CN9002	* 1-816-979-51	PLUG, CONNECTOR 8P	
CN9003	* 1-564-512-11	PLUG, CONNECTOR 9P	
CN9004 ⚠	1-251-182-41	SOCKET, CRT	
CN9007	1-695-915-11	TAB (CONTACT)	

< DIODE >

REF.NO.	PART.NO	DESCRIPTION	REMARK
D9000	8-719-901-83	DIODE 1SS83	
D9001	8-719-901-83	DIODE 1SS83	
D9002	8-719-109-68	DIODE RD3.6ESB1	
D9003	8-719-991-33	DIODE 1SS133T-77	
D9004	8-719-110-31	DIODE RD12ESB2	

< IC >

REF.NO.	PART.NO	DESCRIPTION	REMARK
IC9000	6-704-806-01	IC TDA6118JF	

< COIL >

REF.NO.	PART.NO	DESCRIPTION	REMARK
L9000	1-414-928-21	INDUCTOR 1UH	
L9001	1-414-928-21	INDUCTOR 1UH	

< TRANSISTOR >

REF.NO.	PART.NO	DESCRIPTION	REMARK
Q9000	8-729-025-25	TRANSISTOR BF550	
Q9001	8-729-010-29	TRANSISTOR MSD601-RST1	
Q9002	8-729-010-05	TRANSISTOR MSB709-RT1	
Q9003	8-729-200-17	TRANSISTOR 2SA1091-O	

< RESISTOR >

REF.NO.	PART.NO	DESCRIPTION	REMARK
R9001	1-216-813-11	METAL CHIP 220 5%	1/10W
R9002	1-216-814-11	METAL CHIP 270 5%	1/10W
R9003	1-216-813-11	METAL CHIP 220 5%	1/10W
R9004	1-216-864-11	SHORT CHIP 0	
R9006	1-216-864-11	SHORT CHIP 0	
R9007	1-247-807-31	CARBON 100 5%	1/4W
R9008	1-202-557-00	SOLID 220 20%	1/2W
R9009	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
R9010	1-260-132-11	CARBON 560K 5%	1/2W
R9011	1-219-743-11	METAL 100 5%	1/2W
R9012	1-260-133-11	CARBON 680K 5%	1/2W
R9013	1-260-328-11	CARBON 1K 5%	1/2W
R9021	1-216-826-11	METAL CHIP 2.7K 5%	1/10W
R9022	1-216-821-11	METAL CHIP 1K 5%	1/10W
R9023	1-249-409-11	CARBON 220 5%	1/4W

< SPARK GAP >

REF.NO.	PART.NO	DESCRIPTION	REMARK
SG9000	1-576-354-21	GAP, SPARK	
SG9001	1-519-422-11	GAP, SPARK	
SG9002	1-517-729-31	GAP, SPARK	
SG9003	1-517-778-21	LAMP, NEON	

* A-1405-596-A CB Board Complete

REF.NO.	PART.NO	DESCRIPTION	REMARK
	* 4-102-022-01	PIN(30), WIRE	
	4-382-854-01	SCREW (M3X8), P, SW (+)	

< CAPACITOR >

REF.NO.	PART.NO	DESCRIPTION	REMARK
C9600	1-136-189-00	MYLAR 0.1UF	10.00% 250V
C9601	1-107-652-11	ELECT 10UF	20.00% 250V
C9602	1-165-176-11	CERAMIC CHIP 0.047UF	10.00% 16V
C9603	1-126-947-11	ELECT 47UF	20.00% 35V
C9604	1-117-216-51	CERAMIC 0.0022UF	10.00% 3KV
C9605	1-115-350-51	CERAMIC 0.0047UF	2KV
C9607	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9610	1-115-350-51	CERAMIC 0.0047UF	2KV
C9619	1-115-350-51	CERAMIC 0.0047UF	2KV
C9620	1-115-412-11	CERAMIC CHIP 680PF	5.00% 25V
C9623	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9626	1-162-921-11	CERAMIC CHIP 33PF	5.00% 50V

< CONNECTOR >

REF.NO.	PART.NO	DESCRIPTION	REMARK
CN9600	1-785-879-11	CONNECTOR, ONE TOUCH	
CN9601	* 1-564-510-11	PLUG, CONNECTOR 7P	
CN9603	* 1-816-977-51	PLUG, CONNECTOR 6P	
CN9604 ⚠	1-251-182-41	SOCKET, CRT	
CN9607	1-695-915-11	TAB (CONTACT)	
CN9610	* 1-564-510-11	PLUG, CONNECTOR 7P	

< DIODE >

REF.NO.	PART.NO	DESCRIPTION	REMARK
D9600	8-719-901-83	DIODE 1SS83	
D9601	8-719-901-83	DIODE 1SS83	
D9602	8-719-991-33	DIODE 1SS133T-77	
D9604	8-719-110-31	DIODE RD12ESB2	

Note : The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

REF.NO.	PART.NO	DESCRIPTION			REMARK
		< IC >			
IC9600	6-704-806-01	IC TDA6118JF			
		< COIL >			
L9600	1-414-928-21	INDUCTOR	1UH		
L9601	1-414-928-21	INDUCTOR	1UH		
		< TRANSISTOR >			
Q9600	8-729-025-25	TRANSISTOR BF550			
Q9601	8-729-010-29	TRANSISTOR MSD601-RST1			
Q9603	8-729-200-17	TRANSISTOR 2SA1091-O			
Q9604	8-729-010-05	TRANSISTOR MSB709-RT1			
Q9605	8-729-010-29	TRANSISTOR MSD601-RST1			
Q9606	8-729-010-29	TRANSISTOR MSD601-RST1			
		< RESISTOR >			
R9601	1-216-813-11	METAL CHIP	220	5%	1/10W
R9602	1-216-814-11	METAL CHIP	270	5%	1/10W
R9603	1-216-813-11	METAL CHIP	220	5%	1/10W
R9604	1-216-864-11	SHORT CHIP	0		
R9606	1-216-864-11	SHORT CHIP	0		
R9607	1-247-807-31	CARBON	100	5%	1/4W
R9608	1-202-557-00	SOLID	220	20%	1/2W
R9610	1-260-132-11	CARBON	560K	5%	1/2W
R9611	1-219-743-11	METAL	100	5%	1/2W
R9612	1-260-133-11	CARBON	680K	5%	1/2W
R9613	1-260-328-11	CARBON	1K	5%	1/2W
R9617	1-249-391-11	CARBON	6.8	5%	1/4W
R9621	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R9623	1-249-409-11	CARBON	220	5%	1/4W
R9624	1-216-815-11	METAL CHIP	330	5%	1/10W
R9625	1-218-841-11	METAL CHIP	560	0.5%	1/10W
R9626	1-216-819-11	METAL CHIP	680	5%	1/10W
R9627	1-216-815-11	METAL CHIP	330	5%	1/10W
R9628	1-218-841-11	METAL CHIP	560	0.5%	1/10W
R9629	1-216-815-11	METAL CHIP	330	5%	1/10W
		< SPARK GAP >			
SG9600	1-576-354-21	GAP, SPARK			
SG9601	1-519-422-11	GAP, SPARK			
SG9602	1-517-729-31	GAP, SPARK			
SG9603	1-517-778-21	LAMP, NEON			

* A-1405-597-A CG Board Complete

	* 4-102-022-01	PIN(30), WIRE			
	4-382-854-01	SCREW (M3X8), P, SW (+)			
		< CAPACITOR >			
C9300	1-136-189-00	MYLAR	0.1UF		10.00% 250V
C9301	1-107-652-11	ELECT	10UF		20.00% 250V
C9302	1-165-176-11	CERAMIC CHIP	0.047UF		10.00% 16V
C9303	1-126-947-11	ELECT	47UF		20.00% 35V
C9304	1-117-216-51	CERAMIC	0.0022UF		10.00% 3KV
C9305	1-115-350-51	CERAMIC	0.0047UF		2KV
C9307	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9310	1-115-350-51	CERAMIC	0.0047UF		2KV
C9319	1-115-350-51	CERAMIC	0.0047UF		2KV
C9320	1-115-412-11	CERAMIC CHIP	680PF		5.00% 25V
C9323	1-162-921-11	CERAMIC CHIP	33PF		5.00% 50V
		< CONNECTOR >			
CN9300	1-785-879-11	CONNECTOR, ONE TOUCH			
CN9301	* 1-564-510-11	PLUG, CONNECTOR 7P			
CN9302	* 1-816-977-51	PLUG, CONNECTOR 6P			
CN9303	* 1-816-979-51	PLUG, CONNECTOR 8P			
CN9304	⚠ 1-251-182-41	SOCKET, CRT			
CN9307	1-695-915-11	TAB (CONTACT)			
CN9310	* 1-564-510-11	PLUG, CONNECTOR 7P			
		< DIODE >			
D9300	8-719-901-83	DIODE 1SS83			
D9301	8-719-901-83	DIODE 1SS83			
D9302	8-719-991-33	DIODE 1SS133T-77			
D9304	8-719-110-31	DIODE RD12ESB2			
		< IC >			
IC9300	6-704-806-01	IC TDA6118JF			
		< COIL >			
L9300	1-414-928-21	INDUCTOR	1UH		
L9301	1-414-928-21	INDUCTOR	1UH		
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Q9300	8-729-025-25	TRANSISTOR BF550			
Q9301	8-729-010-29	TRANSISTOR MSD601-RST1			
Q9303	8-729-200-17	TRANSISTOR 2SA1091-O			
		< RESISTOR >			
R9301	1-216-813-11	METAL CHIP	220	5%	1/10W
R9302	1-216-814-11	METAL CHIP	270	5%	1/10W
R9303	1-216-813-11	METAL CHIP	220	5%	1/10W
R9304	1-216-864-11	SHORT CHIP	0		
R9306	1-216-864-11	SHORT CHIP	0		
R9307	1-247-807-31	CARBON	100	5%	1/4W
R9308	1-202-557-00	SOLID	220	20%	1/2W
R9310	1-260-132-11	CARBON	560K	5%	1/2W
R9311	1-219-743-11	METAL	100	5%	1/2W
R9312	1-260-133-11	CARBON	680K	5%	1/2W

REF.NO.	PART.NO	DESCRIPTION			REMARK
R9313	1-260-328-11	CARBON	1K	5%	1/2W
R9321	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R9323	1-249-409-11	CARBON	220	5%	1/4W
		< SPARK GAP >			
SG9300	1-576-354-21	GAP, SPARK			
SG9301	1-519-422-11	GAP, SPARK			
SG9302	1-517-729-31	GAP, SPARK			
SG9303	1-517-778-21	LAMP, NEON			
TP9300	* 1-536-354-51	PIN, POST			

* A-1405-598-A VMG Board Complete

REF.NO.	PART.NO	DESCRIPTION			REMARK
	4-382-854-01	SCREW (M3X8), P, SW (+)			
		< CAPACITOR >			
C9401	1-126-947-11	ELECT	47UF	20.00%	35V
C9402	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9403	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C9404	1-107-636-11	ELECT	10UF	20.00%	160V
C9406	1-161-830-00	CERAMIC	0.0047UF		500V
C9407	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9408	1-126-964-11	ELECT	10UF	20.00%	50V
C9409	1-107-636-11	ELECT	10UF	20.00%	160V
C9410	1-137-528-11	MYLAR	0.1UF	10.00%	250V
C9411	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C9412	1-137-528-11	MYLAR	0.1UF	10.00%	250V
C9413	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C9414	1-117-450-11	MYLAR	0.47UF	10.00%	250V
		< CONNECTOR >			
CN9401	* 1-564-508-11	PLUG, CONNECTOR 5P			
CN9402	* 1-564-511-11	PLUG, CONNECTOR 8P			
CN9403	* 1-770-723-11	CONNECTOR, BOARD TO BOARD 8P			
		< COIL >			
L9401	1-414-928-21	INDUCTOR	1UH		
L9402	1-414-928-21	INDUCTOR	1UH		
		< TRANSISTOR >			
Q9401	8-729-010-29	TRANSISTOR MSD601-RST1			
Q9402	8-729-010-29	TRANSISTOR MSD601-RST1			
Q9403	8-729-010-29	TRANSISTOR MSD601-RST1			
Q9404	8-729-010-05	TRANSISTOR MSB709-RT1			
Q9405	8-729-010-29	TRANSISTOR MSD601-RST1			
Q9406	8-729-010-05	TRANSISTOR MSB709-RT1			
Q9407	8-729-010-29	TRANSISTOR MSD601-RST1			
Q9408	8-729-010-05	TRANSISTOR MSB709-RT1			
Q9409	8-729-010-29	TRANSISTOR MSD601-RST1			
Q9410	8-729-010-05	TRANSISTOR MSB709-RT1			
Q9411	8-729-045-05	TRANSISTOR 2SA2005			
Q9412	8-729-045-04	TRANSISTOR 2SC5511			
Q9413	8-729-010-29	TRANSISTOR MSD601-RST1			
Q9414	8-729-010-05	TRANSISTOR MSB709-RT1			
		< RESISTOR >			
R9401	1-249-381-11	CARBON	1	5%	1/4W
R9402	1-216-820-11	METAL CHIP	820	5%	1/10W
R9403	1-216-819-11	METAL CHIP	680	5%	1/10W
R9404	1-216-834-11	METAL CHIP	12K	5%	1/10W
R9405	1-216-839-11	METAL CHIP	33K	5%	1/10W
R9406	1-216-805-11	METAL CHIP	47	5%	1/10W
R9408	1-216-815-11	METAL CHIP	330	5%	1/10W
R9409	1-216-805-11	METAL CHIP	47	5%	1/10W
R9410	1-216-805-11	METAL CHIP	47	5%	1/10W
R9411	1-249-393-11	CARBON	10	5%	1/4W
R9412	1-249-393-11	CARBON	10	5%	1/4W
R9413	1-249-393-11	CARBON	10	5%	1/4W
R9414	1-249-393-11	CARBON	10	5%	1/4W
R9415	1-249-393-11	CARBON	10	5%	1/4W
R9416	1-249-393-11	CARBON	10	5%	1/4W
R9417	1-249-393-11	CARBON	10	5%	1/4W
R9418	1-249-393-11	CARBON	10	5%	1/4W
R9419	1-216-839-11	METAL CHIP	33K	5%	1/10W
R9420	1-216-821-11	METAL CHIP	1K	5%	1/10W
R9421	1-216-801-11	METAL CHIP	22	5%	1/10W
R9422	1-216-801-11	METAL CHIP	22	5%	1/10W
R9423	1-216-821-11	METAL CHIP	1K	5%	1/10W
R9424	1-216-839-11	METAL CHIP	33K	5%	1/10W
R9425	1-243-572-21	METAL OXIDE	470	5%	2W
R9426	1-216-839-11	METAL CHIP	33K	5%	1/10W
R9427	1-216-839-11	METAL CHIP	33K	5%	1/10W
R9429	1-216-821-11	METAL CHIP	1K	5%	1/10W
R9430	1-216-809-11	METAL CHIP	100	5%	1/10W
R9431	1-216-809-11	METAL CHIP	100	5%	1/10W
R9432	1-216-817-11	METAL CHIP	470	5%	1/10W
R9433	1-216-817-11	METAL CHIP	470	5%	1/10W

* A-1405-599-A VMR Board Complete

REF.NO.	PART.NO	DESCRIPTION			REMARK
	4-382-854-01	SCREW (M3X8), P, SW (+)			
		< CAPACITOR >			
C9101	1-126-947-11	ELECT	47UF	20.00%	35V
C9102	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9103	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C9104	1-107-636-11	ELECT	10UF	20.00%	160V
C9106	1-161-830-00	CERAMIC	0.0047UF		500V
C9107	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9108	1-126-964-11	ELECT	10UF	20.00%	50V

REF.NO.	PART.NO	DESCRIPTION	REMARK
C9109	1-107-636-11	ELECT 10UF	20.00% 160V
C9110	1-137-528-11	MYLAR 0.1UF	10.00% 250V
C9111	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C9112	1-137-528-11	MYLAR 0.1UF	10.00% 250V
C9113	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C9114	1-117-450-11	MYLAR 0.47UF	10.00% 250V
		< CONNECTOR >	
CN9101	* 1-564-508-11	PLUG, CONNECTOR 5P	
CN9102	* 1-564-511-11	PLUG, CONNECTOR 8P	
CN9103	* 1-770-723-11	CONNECTOR, BOARD TO BOARD 8P	
		< COIL >	
L9101	1-414-928-21	INDUCTOR 1UH	
L9102	1-414-928-21	INDUCTOR 1UH	
		< TRANSISTOR >	
Q9101	8-729-010-29	TRANSISTOR MSD601-RST1	
Q9102	8-729-010-29	TRANSISTOR MSD601-RST1	
Q9103	8-729-010-29	TRANSISTOR MSD601-RST1	
Q9104	8-729-010-05	TRANSISTOR MSB709-RT1	
Q9105	8-729-010-29	TRANSISTOR MSD601-RST1	
Q9106	8-729-010-05	TRANSISTOR MSB709-RT1	
Q9107	8-729-010-29	TRANSISTOR MSD601-RST1	
Q9108	8-729-010-05	TRANSISTOR MSB709-RT1	
Q9109	8-729-010-29	TRANSISTOR MSD601-RST1	
Q9110	8-729-010-05	TRANSISTOR MSB709-RT1	
Q9111	8-729-045-05	TRANSISTOR 2SA2005	
Q9112	8-729-045-04	TRANSISTOR 2SC5511	
Q9113	8-729-010-29	TRANSISTOR MSD601-RST1	
Q9114	8-729-010-05	TRANSISTOR MSB709-RT1	
		< RESISTOR >	
R9101	1-249-381-11	CARBON 1	5% 1/4W
R9102	1-216-820-11	METAL CHIP 820	5% 1/10W
R9103	1-216-819-11	METAL CHIP 680	5% 1/10W
R9104	1-216-834-11	METAL CHIP 12K	5% 1/10W
R9105	1-216-839-11	METAL CHIP 33K	5% 1/10W
R9106	1-216-805-11	METAL CHIP 47	5% 1/10W
R9108	1-216-815-11	METAL CHIP 330	5% 1/10W
R9109	1-216-805-11	METAL CHIP 47	5% 1/10W
R9110	1-216-805-11	METAL CHIP 47	5% 1/10W
R9111	1-249-393-11	CARBON 10	5% 1/4W
R9112	1-249-393-11	CARBON 10	5% 1/4W
R9113	1-249-393-11	CARBON 10	5% 1/4W
R9114	1-249-393-11	CARBON 10	5% 1/4W
R9115	1-249-393-11	CARBON 10	5% 1/4W
R9116	1-249-393-11	CARBON 10	5% 1/4W
R9117	1-249-393-11	CARBON 10	5% 1/4W
R9118	1-249-393-11	CARBON 10	5% 1/4W
R9119	1-216-839-11	METAL CHIP 33K	5% 1/10W
R9120	1-216-821-11	METAL CHIP 1K	5% 1/10W
R9121	1-216-801-11	METAL CHIP 22	5% 1/10W
R9122	1-216-801-11	METAL CHIP 22	5% 1/10W
R9123	1-216-821-11	METAL CHIP 1K	5% 1/10W
R9124	1-216-839-11	METAL CHIP 33K	5% 1/10W
R9125	1-243-572-21	METAL OXIDE 470	5% 2W
R9126	1-216-839-11	METAL CHIP 33K	5% 1/10W
R9127	1-216-839-11	METAL CHIP 33K	5% 1/10W
R9129	1-216-821-11	METAL CHIP 1K	5% 1/10W
R9130	1-216-809-11	METAL CHIP 100	5% 1/10W
R9131	1-216-809-11	METAL CHIP 100	5% 1/10W
R9132	1-216-817-11	METAL CHIP 470	5% 1/10W
R9133	1-216-817-11	METAL CHIP 470	5% 1/10W

* A-1405-600-A VMB Board Complete

	4-382-854-01	SCREW (M3X8), P, SW (+)	
		< CAPACITOR >	
C9701	1-126-947-11	ELECT 47UF	20.00% 35V
C9702	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9703	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C9704	1-107-636-11	ELECT 10UF	20.00% 160V
C9706	1-161-830-00	CERAMIC 0.0047UF	500V
C9707	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9708	1-126-964-11	ELECT 10UF	20.00% 50V
C9709	1-107-636-11	ELECT 10UF	20.00% 160V
C9710	1-137-528-11	MYLAR 0.1UF	10.00% 250V
C9711	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C9712	1-137-528-11	MYLAR 0.1UF	10.00% 250V
C9713	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C9714	1-117-450-11	MYLAR 0.47UF	10.00% 250V
		< CONNECTOR >	
CN9701	* 1-564-508-11	PLUG, CONNECTOR 5P	
CN9702	* 1-564-511-11	PLUG, CONNECTOR 8P	
CN9703	* 1-770-723-11	CONNECTOR, BOARD TO BOARD 8P	
		< COIL >	
L9701	1-414-928-21	INDUCTOR 1UH	
L9702	1-414-928-21	INDUCTOR 1UH	
		< TRANSISTOR >	
Q9701	8-729-010-29	TRANSISTOR MSD601-RST1	
Q9702	8-729-010-29	TRANSISTOR MSD601-RST1	
Q9703	8-729-010-29	TRANSISTOR MSD601-RST1	
Q9704	8-729-010-05	TRANSISTOR MSB709-RT1	
Q9705	8-729-010-29	TRANSISTOR MSD601-RST1	
Q9706	8-729-010-05	TRANSISTOR MSB709-RT1	

REF.NO.	PART.NO	DESCRIPTION	REMARK
Q9707	8-729-010-29	TRANSISTOR MSD601-RST1	
Q9708	8-729-010-05	TRANSISTOR MSB709-RT1	
Q9709	8-729-010-29	TRANSISTOR MSD601-RST1	
Q9710	8-729-010-05	TRANSISTOR MSB709-RT1	
Q9711	8-729-045-05	TRANSISTOR 2SA2005	
Q9712	8-729-045-04	TRANSISTOR 2SC5511	
Q9713	8-729-010-29	TRANSISTOR MSD601-RST1	
Q9714	8-729-010-05	TRANSISTOR MSB709-RT1	

< RESISTOR >

REF.NO.	PART.NO	DESCRIPTION	REMARK
R9701	1-249-381-11	CARBON 1 5%	1/4W
R9702	1-216-820-11	METAL CHIP 820 5%	1/10W
R9703	1-216-819-11	METAL CHIP 680 5%	1/10W
R9704	1-216-834-11	METAL CHIP 12K 5%	1/10W
R9705	1-216-839-11	METAL CHIP 33K 5%	1/10W
R9706	1-216-805-11	METAL CHIP 47 5%	1/10W
R9708	1-216-815-11	METAL CHIP 330 5%	1/10W
R9709	1-216-805-11	METAL CHIP 47 5%	1/10W
R9710	1-216-805-11	METAL CHIP 47 5%	1/10W
R9711	1-249-393-11	CARBON 10 5%	1/4W
R9712	1-249-393-11	CARBON 10 5%	1/4W
R9713	1-249-393-11	CARBON 10 5%	1/4W
R9714	1-249-393-11	CARBON 10 5%	1/4W
R9715	1-249-393-11	CARBON 10 5%	1/4W
R9716	1-249-393-11	CARBON 10 5%	1/4W
R9717	1-249-393-11	CARBON 10 5%	1/4W
R9718	1-249-393-11	CARBON 10 5%	1/4W
R9719	1-216-839-11	METAL CHIP 33K 5%	1/10W
R9720	1-216-821-11	METAL CHIP 1K 5%	1/10W
R9721	1-216-801-11	METAL CHIP 22 5%	1/10W
R9722	1-216-801-11	METAL CHIP 22 5%	1/10W
R9723	1-216-821-11	METAL CHIP 1K 5%	1/10W
R9724	1-216-839-11	METAL CHIP 33K 5%	1/10W
R9725	1-243-572-21	METAL OXIDE 470 5%	2W
R9726	1-216-839-11	METAL CHIP 33K 5%	1/10W
R9727	1-216-839-11	METAL CHIP 33K 5%	1/10W
R9729	1-216-821-11	METAL CHIP 1K 5%	1/10W
R9730	1-216-809-11	METAL CHIP 100 5%	1/10W
R9731	1-216-809-11	METAL CHIP 100 5%	1/10W
R9732	1-216-817-11	METAL CHIP 470 5%	1/10W
R9733	1-216-817-11	METAL CHIP 470 5%	1/10W

* A-1302-326-A AD Board Complete

< CAPACITOR >

REF.NO.	PART.NO	DESCRIPTION	REMARK
C9401	1-126-933-11	ELECT 100UF	20.00% 16V
C9402	1-126-933-11	ELECT 100UF	20.00% 16V
C9403	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9404	1-162-919-11	CERAMIC CHIP 22PF	5.00% 50V
C9405	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9406	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9407	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9408	1-162-919-11	CERAMIC CHIP 22PF	5.00% 50V
C9409	1-126-933-11	ELECT 100UF	20.00% 16V
C9410	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9411	1-162-966-11	CERAMIC CHIP 0.0022UF	10.00% 50V
C9413	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9414	1-126-933-11	ELECT 100UF	20.00% 16V
C9415	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9416	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9417	1-162-915-11	CERAMIC CHIP 10PF	0.50PF 50V
C9418	1-162-927-11	CERAMIC CHIP 100PF	5.00% 50V
C9419	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9420	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V
C9422	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9424	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9425	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9426	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9427	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9428	1-126-933-11	ELECT 100UF	20.00% 16V
C9429	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9430	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9431	1-126-963-11	ELECT 4.7UF	20.00% 50V
C9432	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C9433	1-126-933-11	ELECT 100UF	20.00% 16V
C9434	1-126-933-11	ELECT 100UF	20.00% 16V
C9440	1-164-315-11	CERAMIC CHIP 470PF	5.00% 50V
C9441	1-164-315-11	CERAMIC CHIP 470PF	5.00% 50V
C9442	1-115-412-11	CERAMIC CHIP 680PF	5.00% 25V
C9444	1-115-412-11	CERAMIC CHIP 680PF	5.00% 25V
C9446	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9447	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9448	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9450	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9452	1-162-927-11	CERAMIC CHIP 100PF	5.00% 50V
C9453	1-162-927-11	CERAMIC CHIP 100PF	5.00% 50V
C9454	1-162-910-11	CERAMIC CHIP 5PF	0.25PF 50V
C9458	1-162-910-11	CERAMIC CHIP 5PF	0.25PF 50V
C9459	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9460	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9461	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9462	1-126-933-11	ELECT 100UF	20.00% 16V
C9463	1-126-933-11	ELECT 100UF	20.00% 16V
C9464	1-126-933-11	ELECT 100UF	20.00% 16V
C9465	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9466	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9467	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9468	1-164-315-11	CERAMIC CHIP 470PF	5.00% 50V
C9469	1-164-315-11	CERAMIC CHIP 470PF	5.00% 50V
C9470	1-115-412-11	CERAMIC CHIP 680PF	5.00% 25V

REF.NO.	PART.NO	DESCRIPTION	REMARK
C9472	1-115-412-11	CERAMIC CHIP 680PF	5.00% 25V
C9474	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9475	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9476	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9478	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9480	1-162-927-11	CERAMIC CHIP 100PF	5.00% 50V
C9481	1-162-927-11	CERAMIC CHIP 100PF	5.00% 50V
C9482	1-162-910-11	CERAMIC CHIP 5PF	0.25PF 50V
C9483	1-162-910-11	CERAMIC CHIP 5PF	0.25PF 50V
C9484	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9485	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9486	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9488	1-126-933-11	ELECT 100UF	20.00% 16V
C9489	1-126-933-11	ELECT 100UF	20.00% 16V
C9490	1-126-933-11	ELECT 100UF	20.00% 16V
C9491	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9492	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9493	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9494	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9495	1-162-968-11	CERAMIC CHIP 0.0047UF	10.00% 50V
C9498	1-126-933-11	ELECT 100UF	20.00% 16V
C9501	1-164-315-11	CERAMIC CHIP 470PF	5.00% 50V
C9502	1-115-412-11	CERAMIC CHIP 680PF	5.00% 25V
C9503	1-164-315-11	CERAMIC CHIP 470PF	5.00% 50V
C9505	1-115-412-11	CERAMIC CHIP 680PF	5.00% 25V
C9506	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9508	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9509	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9511	1-162-927-11	CERAMIC CHIP 100PF	5.00% 50V
C9512	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9514	1-162-910-11	CERAMIC CHIP 5PF	0.25PF 50V
C9515	1-162-927-11	CERAMIC CHIP 100PF	5.00% 50V
C9516	1-162-910-11	CERAMIC CHIP 5PF	0.25PF 50V
C9517	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9518	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9520	1-164-173-11	CERAMIC CHIP 0.0039UF	10.00% 50V
C9521	1-164-173-11	CERAMIC CHIP 0.0039UF	10.00% 50V
C9523	1-164-173-11	CERAMIC CHIP 0.0039UF	10.00% 50V
C9524	1-164-173-11	CERAMIC CHIP 0.0039UF	10.00% 50V
C9525	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9526	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9540	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9541	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9542	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9543	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9546	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9547	1-164-392-11	CERAMIC CHIP 390PF	5.00% 50V
C9548	1-162-927-11	CERAMIC CHIP 100PF	5.00% 50V
C9549	1-115-416-11	CERAMIC CHIP 0.001UF	5.00% 25V
C9550	1-164-156-11	CERAMIC CHIP 0.1UF	25V

REF.NO.	PART.NO	DESCRIPTION	REMARK
C9552	1-162-974-11	CERAMIC CHIP 0.01UF	50V
C9553	1-126-947-11	ELECT 47UF	20.00% 35V
C9554	1-126-947-11	ELECT 47UF	20.00% 35V
C9555	1-126-947-11	ELECT 47UF	20.00% 35V
C9556	1-126-916-11	ELECT 1000UF	20.00% 6.3V
C9557	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9558	1-126-933-11	ELECT 100UF	20.00% 16V
C9559	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9560	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9561	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C9562	1-126-935-11	ELECT 470UF	20.00% 16V
		< CONNECTOR >	
CN9400	1-764-613-11	CONNECTOR, BOARD TO BOARD 20P	
CN9401	1-764-613-11	CONNECTOR, BOARD TO BOARD 20P	
CN9402	* 1-816-979-51	PLUG, CONNECTOR 8P	
		< DIODE >	
D9400	8-719-081-97	DIODE MMDL914T1	
D9401	8-719-081-97	DIODE MMDL914T1	
D9402	8-719-081-97	DIODE MMDL914T1	
D9404	8-719-081-97	DIODE MMDL914T1	
D9405	8-719-081-97	DIODE MMDL914T1	
D9406	8-719-976-99	DIODE DTZ5.1B	
D9407	8-719-976-99	DIODE DTZ5.1B	
D9408	8-719-976-99	DIODE DTZ5.1B	
D9409	8-719-976-99	DIODE DTZ5.1B	
		< FERRITE BEAD >	
FB9401	1-414-445-11	FERRITE 0UH	
FB9402	1-414-445-11	FERRITE 0UH	
FB9403	1-414-445-11	FERRITE 0UH	
FB9404	1-414-445-11	FERRITE 0UH	
FB9405	1-414-445-11	FERRITE 0UH	
FB9406	1-414-445-11	FERRITE 0UH	
FB9407	1-414-445-11	FERRITE 0UH	
FB9408	1-414-445-11	FERRITE 0UH	
FB9409	1-414-445-11	FERRITE 0UH	
FB9410	1-414-445-11	FERRITE 0UH	
FB9411	1-414-445-11	FERRITE 0UH	
FB9412	1-414-445-11	FERRITE 0UH	
FB9413	1-414-445-11	FERRITE 0UH	
FB9414	1-414-445-11	FERRITE 0UH	
FB9415	1-414-445-11	FERRITE 0UH	
FB9416	1-414-445-11	FERRITE 0UH	
FB9417	1-414-445-11	FERRITE 0UH	
		< IC >	
IC9400	8-753-209-45	IC CXP86460-651Q	

REF.NO.	PART.NO	DESCRIPTION	REMARK
IC9401	8-759-683-55	IC CM0017AF	
IC9402	8-759-682-41	IC M24C32-WMN6T(A)	
IC9403	8-759-352-91	IC PST9143NL	
IC9405	8-759-830-08	IC NJM2068V-TE2	
IC9406	8-759-830-08	IC NJM2068V-TE2	
IC9407	8-759-829-87	IC CD0031AM	
IC9408	8-759-830-08	IC NJM2068V-TE2	
IC9409	8-759-830-08	IC NJM2068V-TE2	
IC9410	8-759-830-08	IC NJM2068V-TE2	
IC9411	8-759-830-08	IC NJM2068V-TE2	
IC9413	8-759-278-58	IC NJM4558V-TE2	
IC9414	8-759-278-58	IC NJM4558V-TE2	
IC9420	8-759-830-08	IC NJM2068V-TE2	
IC9421	8-759-662-86	IC NJM79M05DL1A(TE2)	
IC9422	8-759-641-26	IC NJM2391DL1-33(TE1)	
		< COIL >	
L9401	1-469-555-21	INDUCTOR 10UH	
		< TRANSISTOR >	
Q9400	8-729-010-05	TRANSISTOR MSB709-RT1	
Q9401	8-729-010-05	TRANSISTOR MSB709-RT1	
Q9402	8-729-010-05	TRANSISTOR MSB709-RT1	
Q9403	8-729-010-29	TRANSISTOR MSD601-RST1	
Q9405	8-729-010-29	TRANSISTOR MSD601-RST1	
Q9406	8-729-010-29	TRANSISTOR MSD601-RST1	
Q9407	8-729-010-29	TRANSISTOR MSD601-RST1	
Q9408	8-729-010-29	TRANSISTOR MSD601-RST1	
Q9411	8-729-010-29	TRANSISTOR MSD601-RST1	
Q9412	8-729-010-29	TRANSISTOR MSD601-RST1	
Q9413	8-729-010-29	TRANSISTOR MSD601-RST1	
Q9414	8-729-010-29	TRANSISTOR MSD601-RST1	
Q9415	8-729-010-29	TRANSISTOR MSD601-RST1	
Q9416	8-729-028-28	TRANSISTOR 2SK2036(TE85L)	
Q9417	8-729-028-28	TRANSISTOR 2SK2036(TE85L)	
		< RESISTOR >	
R9400	1-216-841-11	METAL CHIP 47K 5% 1/10W	
R9401	1-216-809-11	METAL CHIP 100 5% 1/10W	
R9402	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R9404	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R9405	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R9406	1-216-837-11	METAL CHIP 22K 5% 1/10W	
R9407	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R9408	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R9410	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R9411	1-216-809-11	METAL CHIP 100 5% 1/10W	
R9412	1-216-823-11	METAL CHIP 1.5K 5% 1/10W	
R9413	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R9414	1-216-823-11	METAL CHIP 1.5K 5% 1/10W	

REF.NO.	PART.NO	DESCRIPTION	REMARK
R9415	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R9416	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R9417	1-216-809-11	METAL CHIP 100 5% 1/10W	
R9418	1-216-809-11	METAL CHIP 100 5% 1/10W	
R9419	1-216-839-11	METAL CHIP 33K 5% 1/10W	
R9420	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R9421	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R9422	1-216-818-11	METAL CHIP 560 5% 1/10W	
R9423	1-216-809-11	METAL CHIP 100 5% 1/10W	
R9424	1-216-809-11	METAL CHIP 100 5% 1/10W	
R9425	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R9426	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R9427	1-216-809-11	METAL CHIP 100 5% 1/10W	
R9428	1-216-809-11	METAL CHIP 100 5% 1/10W	
R9429	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R9430	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R9431	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R9432	1-216-815-11	METAL CHIP 330 5% 1/10W	
R9433	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R9434	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R9435	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R9436	1-216-809-11	METAL CHIP 100 5% 1/10W	
R9437	1-216-809-11	METAL CHIP 100 5% 1/10W	
R9438	1-216-815-11	METAL CHIP 330 5% 1/10W	
R9439	1-216-815-11	METAL CHIP 330 5% 1/10W	
R9440	1-216-817-11	METAL CHIP 470 5% 1/10W	
R9441	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R9442	1-218-855-11	METAL CHIP 2.2K 0.5% 1/10W	
R9443	1-218-847-11	METAL CHIP 1K 0.5% 1/10W	
R9444	1-216-837-11	METAL CHIP 22K 5% 1/10W	
R9446	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R9447	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R9448	1-216-818-11	METAL CHIP 560 5% 1/10W	
R9449	1-216-823-11	METAL CHIP 1.5K 5% 1/10W	
R9450	1-216-823-11	METAL CHIP 1.5K 5% 1/10W	
R9451	1-218-855-11	METAL CHIP 2.2K 0.5% 1/10W	
R9452	1-218-855-11	METAL CHIP 2.2K 0.5% 1/10W	
R9453	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R9454	1-218-855-11	METAL CHIP 2.2K 0.5% 1/10W	
R9455	1-218-855-11	METAL CHIP 2.2K 0.5% 1/10W	
R9456	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R9457	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R9458	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R9459	1-218-879-11	METAL CHIP 22K 0.5% 1/10W	
R9460	1-218-879-11	METAL CHIP 22K 0.5% 1/10W	
R9461	1-218-879-11	METAL CHIP 22K 0.5% 1/10W	
R9462	1-218-879-11	METAL CHIP 22K 0.5% 1/10W	
R9463	1-218-871-11	METAL CHIP 10K 0.5% 1/10W	
R9464	1-218-871-11	METAL CHIP 10K 0.5% 1/10W	
R9465	1-218-871-11	METAL CHIP 10K 0.5% 1/10W	

REF.NO.	PART.NO	DESCRIPTION	REMARK
R9466	1-218-871-11	METAL CHIP 10K 0.5% 1/10W	
R9467	1-218-855-11	METAL CHIP 2.2K 0.5% 1/10W	
R9468	1-218-855-11	METAL CHIP 2.2K 0.5% 1/10W	
R9469	1-218-855-11	METAL CHIP 2.2K 0.5% 1/10W	
R9470	1-218-855-11	METAL CHIP 2.2K 0.5% 1/10W	
R9471	1-218-879-11	METAL CHIP 22K 0.5% 1/10W	
R9472	1-218-879-11	METAL CHIP 22K 0.5% 1/10W	
R9473	1-218-879-11	METAL CHIP 22K 0.5% 1/10W	
R9474	1-218-879-11	METAL CHIP 22K 0.5% 1/10W	
R9475	1-218-871-11	METAL CHIP 10K 0.5% 1/10W	
R9476	1-218-871-11	METAL CHIP 10K 0.5% 1/10W	
R9477	1-218-871-11	METAL CHIP 10K 0.5% 1/10W	
R9478	1-218-871-11	METAL CHIP 10K 0.5% 1/10W	
R9479	1-218-855-11	METAL CHIP 2.2K 0.5% 1/10W	
R9480	1-218-855-11	METAL CHIP 2.2K 0.5% 1/10W	
R9481	1-218-855-11	METAL CHIP 2.2K 0.5% 1/10W	
R9482	1-218-855-11	METAL CHIP 2.2K 0.5% 1/10W	
R9483	1-218-879-11	METAL CHIP 22K 0.5% 1/10W	
R9484	1-218-879-11	METAL CHIP 22K 0.5% 1/10W	
R9485	1-218-879-11	METAL CHIP 22K 0.5% 1/10W	
R9486	1-218-871-11	METAL CHIP 10K 0.5% 1/10W	
R9487	1-218-879-11	METAL CHIP 22K 0.5% 1/10W	
R9488	1-218-871-11	METAL CHIP 10K 0.5% 1/10W	
R9489	1-218-871-11	METAL CHIP 10K 0.5% 1/10W	
R9490	1-218-871-11	METAL CHIP 10K 0.5% 1/10W	
R9494	1-216-855-11	METAL CHIP 680K 5% 1/10W	
R9495	1-216-853-11	METAL CHIP 470K 5% 1/10W	
R9496	1-216-855-11	METAL CHIP 680K 5% 1/10W	
R9497	1-216-853-11	METAL CHIP 470K 5% 1/10W	
R9515	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R9516	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R9520	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R9524	1-215-866-11	METAL OXIDE 330 5% 1W	
R9527	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R9539	1-218-861-11	METAL CHIP 3.9K 0.5% 1/10W	
R9540	1-218-857-11	METAL CHIP 2.7K 0.5% 1/10W	
R9541	1-216-827-11	METAL CHIP 3.3K 5% 1/10W	
R9542	1-218-869-11	METAL CHIP 8.2K 0.5% 1/10W	
R9545	1-216-839-11	METAL CHIP 33K 5% 1/10W	
R9546	1-218-875-11	METAL CHIP 15K 0.5% 1/10W	
R9548	1-218-895-11	METAL CHIP 100K 0.5% 1/10W	
R9549	1-218-877-11	METAL CHIP 18K 0.5% 1/10W	
R9550	1-216-837-11	METAL CHIP 22K 5% 1/10W	
R9551	1-216-809-11	METAL CHIP 100 5% 1/10W	
R9553	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R9554	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R9555	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R9556	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R9557	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R9558	1-216-821-11	METAL CHIP 1K 5% 1/10W	

REF.NO.	PART.NO	DESCRIPTION	REMARK
R9559	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R9561	1-216-864-11	SHORT CHIP 0	
R9562	1-216-864-11	SHORT CHIP 0	
R9563	1-216-864-11	SHORT CHIP 0	
R9564	1-216-864-11	SHORT CHIP 0	
R9565	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R9566	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R9567	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R9568	1-216-864-11	SHORT CHIP 0	
R9569	1-216-864-11	SHORT CHIP 0	
R9570	1-216-864-11	SHORT CHIP 0	
R9571	1-216-864-11	SHORT CHIP 0	
R9572	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R9573	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R9574	1-216-797-11	METAL CHIP 10 5% 1/10W	
R9575	1-216-797-11	METAL CHIP 10 5% 1/10W	

< RESISTOR CHIP >

REF.NO.	PART.NO	DESCRIPTION	REMARK
RB9400	1-233-576-11	RES, CHIP NETWORK 100 (3216)	
RB9401	1-233-577-11	RES, CHIP NETWORK 470 (3216)	
RB9402	1-233-577-11	RES, CHIP NETWORK 470 (3216)	

< VARISTOR >

REF.NO.	PART.NO	DESCRIPTION	REMARK
VD9404	1-804-499-21	VARISTOR, CHIP (1608)	
VD9405	1-804-499-21	VARISTOR, CHIP (1608)	
VD9406	1-804-499-21	VARISTOR, CHIP (1608)	
VD9407	1-804-499-21	VARISTOR, CHIP (1608)	

< CRYSTAL >

REF.NO.	PART.NO	DESCRIPTION	REMARK
X9401	1-767-922-11	VIBRATOR, CERAMIC	

* A-1302-329-A D Board Complete

REF.NO.	PART.NO	DESCRIPTION	REMARK
	4-382-854-11	SCREW (M3X10), P, SW (+)	
	7-682-952-09	SCREW +PSW 3X16	

< CAPACITOR >

REF.NO.	PART.NO	DESCRIPTION	REMARK
C8001	1-164-227-11	CERAMIC CHIP 0.022UF 10.00% 25V	
C8002	1-162-927-11	CERAMIC CHIP 100PF 5.00% 50V	
C8003	1-162-927-11	CERAMIC CHIP 100PF 5.00% 50V	
C8004	1-104-666-11	ELECT 220UF 20.00% 25V	
C8005	1-126-942-61	ELECT 1000UF 20.00% 25V	
C8006	1-126-942-61	ELECT 1000UF 20.00% 25V	
C8007	1-162-927-11	CERAMIC CHIP 100PF 5.00% 50V	
C8008	1-162-927-11	CERAMIC CHIP 100PF 5.00% 50V	
C8009	1-162-970-11	CERAMIC CHIP 0.01UF 10.00% 25V	
C8010	1-136-177-00	FILM 1UF 5.00% 50V	
C8011	1-162-927-11	CERAMIC CHIP 100PF 5.00% 50V	
C8012	1-162-970-11	CERAMIC CHIP 0.01UF 10.00% 25V	
C8013	1-162-927-11	CERAMIC CHIP 100PF 5.00% 50V	

REF.NO.	PART.NO	DESCRIPTION	REMARK
C8014	1-104-665-11	ELECT 100UF	20.00% 25V
C8015	1-126-969-11	ELECT 220UF	20.00% 50V
C8016	1-104-665-11	ELECT 100UF	20.00% 25V
C8017	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V
C8018	1-126-964-11	ELECT 10UF	20.00% 50V
C8019	1-162-927-11	CERAMIC CHIP 100PF	5.00% 50V
C8020	1-162-927-11	CERAMIC CHIP 100PF	5.00% 50V
C8023	1-106-220-00	MYLAR 0.1UF	10.00% 100V
C8024	1-164-227-11	CERAMIC CHIP 0.022UF	10.00% 25V
C8025	1-126-968-11	ELECT 100UF	20.00% 50V
C8026	1-126-968-11	ELECT 100UF	20.00% 50V
C8028	1-126-968-11	ELECT 100UF	20.00% 50V
C8029	1-126-968-11	ELECT 100UF	20.00% 50V
C8031	1-107-636-11	ELECT 10UF	20.00% 160V
C8032	1-126-968-11	ELECT 100UF	20.00% 50V
C8033	1-126-968-11	ELECT 100UF	20.00% 50V
C8034	1-162-927-11	CERAMIC CHIP 100PF	5.00% 50V
C8035	1-162-927-11	CERAMIC CHIP 100PF	5.00% 50V
C8036	1-126-949-11	ELECT 220UF	20.00% 35V
C8037	1-126-949-11	ELECT 220UF	20.00% 35V
C8040	1-115-349-51	CERAMIC 0.01UF	2KV
C8041	1-162-927-11	CERAMIC CHIP 100PF	5.00% 50V
C8042	1-162-927-11	CERAMIC CHIP 100PF	5.00% 50V
C8045	1-126-965-91	ELECT 22UF	20.00% 50V
C8046	1-128-560-11	ELECT 22UF	20.00% 100V
C8047	1-162-974-11	CERAMIC CHIP 0.01UF	50V
C8048	1-126-965-91	ELECT 22UF	20.00% 50V
C8049	1-162-974-11	CERAMIC CHIP 0.01UF	50V
C8050	1-126-965-91	ELECT 22UF	20.00% 50V
C8051	1-102-038-00	CERAMIC 0.001UF	500V
C8052	1-126-965-91	ELECT 22UF	20.00% 50V
C8053	1-162-974-11	CERAMIC CHIP 0.01UF	50V
C8054	1-162-974-11	CERAMIC CHIP 0.01UF	50V
C8055	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C8056	1-107-652-11	ELECT 10UF	20.00% 250V
C8057	1-126-959-11	ELECT 0.47UF	20.00% 50V
C8058	1-164-230-11	CERAMIC CHIP 220PF	5.00% 50V
C8059	1-127-715-91	CERAMIC CHIP 0.22UF	10% 16V
C8060	1-104-665-11	ELECT 100UF	20.00% 25V
C8061	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C8062	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V
C8063	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C8064	1-107-636-11	ELECT 10UF	20.00% 160V
C8065	1-106-383-00	MYLAR 0.047UF	10.00% 200V
C8066	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V
C8067	1-104-665-11	ELECT 100UF	20.00% 25V
C8068	1-162-318-11	CERAMIC 0.001UF	10.00% 500V
C8069	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V
C8070	1-126-964-11	ELECT 10UF	20.00% 50V
C8071	1-126-964-11	ELECT 10UF	20.00% 50V
C8072	1-126-964-11	ELECT 10UF	20.00% 50V
C8073	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V
C8074	1-104-665-11	ELECT 100UF	20.00% 25V
C8075	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V
C8076	1-104-662-91	ELECT 22UF	20.00% 25V
C8077	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V
C8078	1-115-416-11	CERAMIC CHIP 0.001UF	5.00% 25V
C8079	1-126-964-11	ELECT 10UF	20.00% 50V
C8080	1-126-964-11	ELECT 10UF	20.00% 50V
C8081	1-115-416-11	CERAMIC CHIP 0.001UF	5.00% 25V
C8082	1-165-176-11	CERAMIC CHIP 0.047UF	10.00% 16V
C8083	1-130-495-00	MYLAR 0.1UF	5.00% 50V
C8084	1-130-992-11	FILM 0.022UF	5.00% 50V
C8085	1-162-924-11	CERAMIC CHIP 56PF	5.00% 50V
C8086	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V
C8087	1-126-960-11	ELECT 1UF	20.00% 50V
C8088	1-126-964-11	ELECT 10UF	20.00% 50V
C8089	1-162-134-11	CERAMIC 470PF	10.00% 2KV
C8090	1-126-960-11	ELECT 1UF	20.00% 50V
C8091	1-104-665-11	ELECT 100UF	20.00% 25V
C8092	1-117-640-11	FILM 6800PF	3.00% 1.2KV
C8093	1-107-648-91	ELECT 100UF	20.00% 200V
C8094	1-126-947-11	ELECT 47UF	20.00% 35V
C8095	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V
C8096	1-136-684-51	FILM 0.0022UF	2.00% 100V
C8097	1-162-131-11	CERAMIC 220PF	10.00% 2KV
C8098	1-162-131-11	CERAMIC 220PF	10.00% 2KV
C8099	1-115-416-11	CERAMIC CHIP 0.001UF	5.00% 25V
C8100	1-104-665-11	ELECT 100UF	20.00% 25V
C8102	1-162-318-11	CERAMIC 0.001UF	10.00% 500V
C8103	1-126-964-11	ELECT 10UF	20.00% 50V
C8104	1-162-965-11	CERAMIC CHIP 0.0015UF	10.00% 50V
C8105	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C8106	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C8107	1-136-187-11	MYLAR 0.047UF	10.00% 250V
C8108	1-126-964-11	ELECT 10UF	20.00% 50V
C8109	1-162-924-11	CERAMIC CHIP 56PF	5.00% 50V
C8110	1-126-960-11	ELECT 1UF	20.00% 50V
C8111	1-126-960-11	ELECT 1UF	20.00% 50V
C8113	1-130-495-00	MYLAR 0.1UF	5.00% 50V
C8114	1-125-473-11	ELECT(BLOCK) 1000UF	20% 160V
C8115	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C8116	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C8117	1-162-318-11	CERAMIC 0.001UF	10.00% 500V
C8118	1-136-189-00	MYLAR 0.1UF	10.00% 250V
C8120	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C8121	1-115-349-51	CERAMIC 0.01UF	2KV
C8122	1-126-934-11	ELECT 220UF	20.00% 16V
C8123	1-107-444-11	CERAMIC 100PF	5.00% 2KV
C8124	1-117-642-11	FILM 8200PF	3.00% 1.2KV

REF.NO.	PART.NO	DESCRIPTION	REMARK
C8125	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C8126	1-106-357-00	MYLAR 0.0039UF	99% 200V
C8127	1-126-942-61	ELECT 1000UF	20.00% 25V
C8129	1-137-150-11	FILM 0.01UF	5.00% 100V
C8131	1-128-582-11	ELECT 10UF	20.00% 100V
C8132	1-126-943-11	ELECT 2200UF	20.00% 25V
C8133	1-107-649-11	ELECT 2.2UF	20.00% 250V
C8135	1-117-813-31	FILM 0.75UF	5% 250V
C8136	1-130-495-00	MYLAR 0.1UF	5.00% 50V
C8137	1-126-943-11	ELECT 2200UF	20.00% 25V
C8138	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V
C8139	1-126-964-11	ELECT 10UF	20.00% 50V
C8140	1-102-030-00	CERAMIC 330PF	10.00% 500V
C8141	1-162-927-11	CERAMIC CHIP 100PF	5.00% 50V
C8142	1-117-664-11	FILM 0.27UF	5.00% 250V
C8143	1-109-889-11	ELECT 1UF	20.00% 50V
C8145	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V
C8146	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V
C8153	1-126-960-11	ELECT 1UF	20.00% 50V
C8154	1-126-947-11	ELECT 47UF	20.00% 35V
C8155	1-126-947-11	ELECT 47UF	20.00% 35V
C8156	1-107-636-11	ELECT 10UF	20.00% 160V
C8158	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C8159	1-106-383-00	MYLAR 0.047UF	10.00% 200V
C8160	1-127-715-91	CERAMIC CHIP 0.22UF	10% 16V
C8162	1-162-318-11	CERAMIC 0.001UF	10.00% 500V
C8163	1-126-960-11	ELECT 1UF	20.00% 50V
C8165	1-126-965-91	ELECT 22UF	20.00% 50V
C8184	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V
C8185	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V
C8186	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V
C8187	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V
C8188	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V
C8189	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V
C8190	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V
C8191	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V

< CONNECTOR >

REF.NO.	PART.NO	DESCRIPTION	REMARK
CN8003	* 1-691-135-11	PIN, CONNECTOR (PC BOARD) 4P	
CN8006	* 1-816-974-51	PLUG, CONNECTOR 3P	
CN8007	* 1-816-974-51	PLUG, CONNECTOR 3P	
CN8008	* 1-816-974-51	PLUG, CONNECTOR 3P	
CN8009	* 1-816-974-51	PLUG, CONNECTOR 3P	
CN8010	1-817-041-81	PLUG, CONNECTOR 4P	
CN8011	* 1-564-507-11	PLUG, CONNECTOR 4P	
CN8012	* 1-564-507-11	PLUG, CONNECTOR 4P	
CN8013	1-779-092-11	PIN, CONNECTOR (PC BOARD) 10P	
CN8015	* 1-506-371-00	PIN, CONNECTOR 2P	
CN8016	* 1-564-507-11	PLUG, CONNECTOR 4P	
CN8018	* 1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P	
CN8019	* 1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P	
CN8020	* 1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P	
CN8022	* 1-564-510-11	PLUG, CONNECTOR 7P	
CN8023	* 1-564-507-11	PLUG, CONNECTOR 4P	
CN8025	1-764-333-11	PIN, CONNECTOR(PCB)(V TYPE)10P	
CN8026	1-764-611-11	CONNECTOR, BOARD TO BOARD 20P	
CN8027	1-764-611-11	CONNECTOR, BOARD TO BOARD 20P	
CN8028	* 1-564-507-11	PLUG, CONNECTOR 4P	
CN8029	* 1-564-510-11	PLUG, CONNECTOR 7P	
CN8030	* 1-816-984-71	PLUG, CONNECTOR 7P	
CN8031	1-764-333-11	PIN, CONNECTOR(PCB)(V TYPE)10P	

< DIODE >

REF.NO.	PART.NO	DESCRIPTION	REMARK
D8001	8-719-109-89	DIODE RD5.6ESB2	
D8002	8-719-110-53	DIODE RD20ESB2	
D8003	8-719-924-13	DIODE MTZJ-T-77-22B	
D8004	8-719-908-03	DIODE GP08D	
D8005	8-719-988-61	DIODE 1SS355TE-17	
D8006	8-719-988-61	DIODE 1SS355TE-17	
D8008	8-719-988-61	DIODE 1SS355TE-17	
D8010	8-719-988-61	DIODE 1SS355TE-17	
D8011	8-719-988-61	DIODE 1SS355TE-17	
D8012	8-719-988-61	DIODE 1SS355TE-17	
D8013	8-719-109-85	DIODE RD5.1ESB2	
D8014	8-719-109-85	DIODE RD5.1ESB2	
D8015	8-719-988-61	DIODE 1SS355TE-17	
D8016	8-719-988-61	DIODE 1SS355TE-17	
D8019	8-719-988-61	DIODE 1SS355TE-17	
D8020	8-719-988-61	DIODE 1SS355TE-17	
D8022	8-719-988-61	DIODE 1SS355TE-17	
D8023	8-719-988-61	DIODE 1SS355TE-17	
D8024	8-719-110-41	DIODE RD15ESB2	
D8025	8-719-988-61	DIODE 1SS355TE-17	
D8026	8-719-109-89	DIODE RD5.6ESB2	
D8027	8-719-028-45	DIODE D2L20U	
D8028	8-719-110-41	DIODE RD15ESB2	
D8029	8-719-027-43	DIODE S2L20UF	
D8030	8-719-027-43	DIODE S2L20UF	
D8032	8-719-302-43	DIODE EL1Z	
D8033	8-719-028-72	DIODE RGP02-17EL-6433	
D8036	8-719-110-41	DIODE RD15ESB2	
D8037	8-719-028-45	DIODE D2L20U	
D8038	8-719-302-43	DIODE EL1Z	
D8039	8-719-028-72	DIODE RGP02-17EL-6433	
D8042	8-719-988-61	DIODE 1SS355TE-17	
D8043	8-719-988-61	DIODE 1SS355TE-17	
D8045	8-719-908-03	DIODE GP08D	
D8047	8-719-988-61	DIODE 1SS355TE-17	

Note : The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

D

REF.NO.	PART.NO	DESCRIPTION	REMARK
D8050	8-719-988-61	DIODE 1SS355TE-17	
D8051	8-719-988-61	DIODE 1SS355TE-17	
D8052	8-719-988-61	DIODE 1SS355TE-17	
D8201	8-719-081-97	DIODE MMDL914T1	
D8202	8-719-081-97	DIODE MMDL914T1	
		< FERRITE BEAD >	
FB8001	1-410-397-21	FERRITE 1.1UH	
FB8002	1-410-397-21	FERRITE 1.1UH	
FB8005	1-469-869-21	FERRITE 0UH	
FB8006	1-469-869-21	FERRITE 0UH	
FB8014	1-469-869-21	FERRITE 0UH	
FB8015	1-469-869-21	FERRITE 0UH	
FB8016	1-469-869-21	FERRITE 0UH	
FB8017	1-469-869-21	FERRITE 0UH	
FB8018	1-469-869-21	FERRITE 0UH	
FB8021	1-410-397-21	FERRITE 1.1UH	
FB8022	1-469-579-11	FERRITE 0.45UH	
FB8023	1-469-579-11	FERRITE 0.45UH	
		< IC >	
IC8001	8-749-019-08	IC STK392-560	
IC8002	8-749-019-08	IC STK392-560	
IC8003	8-759-696-71	IC STV9379A	
IC8004	8-759-701-79	IC NJM7812FA	
IC8005	8-759-585-82	IC BA9759F-E2	
IC8006	8-759-700-07	IC NJM2903M	
IC8007	8-759-700-07	IC NJM2903M	
IC8008	8-759-585-82	IC BA9759F-E2	
IC8009	8-759-803-42	IC LA6500-FA	
IC8010	8-759-471-81	IC PQ05RD11	
IC8012	8-759-701-01	IC NJM2904M	
		< COIL >	
L8001	1-412-533-21	INDUCTOR 47UH	
L8002	1-412-533-21	INDUCTOR 47UH	
L8003	1-412-525-31	INDUCTOR 10UH	
L8004	1-412-533-21	INDUCTOR 47UH	
L8005	1-412-533-21	INDUCTOR 47UH	
L8006	1-412-525-31	INDUCTOR 10UH	
L8007	1-412-533-21	INDUCTOR 47UH	
L8008	1-412-533-21	INDUCTOR 47UH	
L8009	1-412-525-31	INDUCTOR 10UH	
L8010	1-414-187-11	INDUCTOR 47UH	
L8011	1-414-856-11	INDUCTOR 10UH	
L8012	1-414-187-11	INDUCTOR 47UH	
L8013	1-414-856-11	INDUCTOR 10UH	
L8014	1-414-189-31	INDUCTOR 100UH	
L8015	1-414-189-31	INDUCTOR 100UH	
L8016	1-412-537-31	INDUCTOR 100UH	
L8017	1-414-856-11	INDUCTOR 10UH	
L8018	1-406-667-11	INDUCTOR 220UH	
L8019	1-456-109-11	COIL,HORIZONTAL LINEARITY(HLC)	
L8020	1-412-525-31	INDUCTOR 10UH	
L8021	1-406-659-11	INDUCTOR 10UH	
L8022	1-412-552-11	INDUCTOR 2.2MH	
L8025	1-414-856-11	INDUCTOR 10UH	
L8026	1-414-856-11	INDUCTOR 10UH	
L8028	1-414-187-11	INDUCTOR 47UH	
L8029	1-414-187-11	INDUCTOR 47UH	
L8030	1-414-187-11	INDUCTOR 47UH	
L8031	1-414-187-11	INDUCTOR 47UH	
L8032	1-414-856-11	INDUCTOR 10UH	
L8033	1-414-856-11	INDUCTOR 10UH	
NL8001	1-517-778-21	LAMP, NEON	
NL8002	1-517-778-21	LAMP, NEON	
		< PROTECTOR MODULE >	
PS8001 ⚠	1-533-595-31	IC LINK 3.15A 90V	
PS8002 ⚠	1-533-595-31	IC LINK 3.15A 90V	
PS8003 ⚠	1-533-595-31	IC LINK 3.15A 90V	
PS8004 ⚠	1-533-595-31	IC LINK 3.15A 90V	
PS8005 ⚠	1-533-595-31	IC LINK 3.15A 90V	
PS8006 ⚠	1-533-595-31	IC LINK 3.15A 90V	
PS8007 ⚠	1-533-594-31	IC LINK 2.5A 90V	
PS8008 ⚠	1-532-685-00	IC LINK 0.8A 50V	
		< TRANSISTOR >	
Q8001	8-729-010-29	TRANSISTOR MSD601-RST1	
Q8002	8-729-046-80	TRANSISTOR 2SC4634LS-CB11	
Q8003	8-729-010-05	TRANSISTOR MSB709-RT1	
Q8004	8-729-010-05	TRANSISTOR MSB709-RT1	
Q8007	8-729-046-80	TRANSISTOR 2SC4634LS-CB11	
Q8008	8-729-207-89	TRANSISTOR 2SA1358-Y	
Q8009	8-729-207-82	TRANSISTOR 2SC3421-Y	
Q8010	8-729-010-29	TRANSISTOR MSD601-RST1	
Q8011	8-729-010-05	TRANSISTOR MSB709-RT1	
Q8014	8-729-010-29	TRANSISTOR MSD601-RST1	
Q8015	8-729-010-29	TRANSISTOR MSD601-RST1	
Q8016	8-729-010-29	TRANSISTOR MSD601-RST1	
Q8019	8-729-010-05	TRANSISTOR MSB709-RT1	
Q8020	8-729-010-29	TRANSISTOR MSD601-RST1	
Q8021	8-729-010-29	TRANSISTOR MSD601-RST1	
Q8022	8-729-010-29	TRANSISTOR MSD601-RST1	
Q8023	8-729-048-47	TRANSISTOR 2SC2688(5)-LK	
Q8024	6-550-144-01	TRANSISTOR 2SC5778-YB	
Q8027	6-550-153-01	TRANSISTOR FQPF12P20XDTU	
Q8028	8-729-010-29	TRANSISTOR MSD601-RST1	

REF.NO.	PART.NO	DESCRIPTION	REMARK
Q8029	8-729-010-29	TRANSISTOR MSD601-RST1	
Q8030	8-729-010-05	TRANSISTOR MSB709-RT1	
Q8031	8-729-010-29	TRANSISTOR MSD601-RST1	
Q8035	6-550-153-01	TRANSISTOR FQPF12P20XDTU	
Q8039	8-729-048-47	TRANSISTOR 2SC2688(5)-LK	
Q8041	8-729-010-05	TRANSISTOR MSB709-RT1	
Q8042	8-729-048-47	TRANSISTOR 2SC2688(5)-LK	
Q8043	6-550-144-01	TRANSISTOR 2SC5778-YB	
Q8044	8-729-010-29	TRANSISTOR MSD601-RST1	
Q8101	8-729-010-05	TRANSISTOR MSB709-RT1	

< RESISTOR >

REF.NO.	PART.NO	DESCRIPTION	REMARK
R8001	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R8002	1-216-809-11	METAL CHIP 100 5% 1/10W	
R8003	1-216-809-11	METAL CHIP 100 5% 1/10W	
R8004	1-216-809-11	METAL CHIP 100 5% 1/10W	
R8005	1-243-713-21	METAL OXIDE 10K 5% 1W	
R8007	1-216-809-11	METAL CHIP 100 5% 1/10W	
R8008	1-216-809-11	METAL CHIP 100 5% 1/10W	
R8009	1-216-809-11	METAL CHIP 100 5% 1/10W	
R8010	1-260-131-11	CARBON 470K 5% 1/2W	
R8011	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R8012	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R8013	1-218-867-11	METAL CHIP 6.8K 0.5% 1/10W	
R8014	1-218-867-11	METAL CHIP 6.8K 0.5% 1/10W	
R8015	1-216-837-11	METAL CHIP 22K 5% 1/10W	
R8016	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R8017	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R8018	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R8019	1-218-863-11	METAL CHIP 4.7K 0.5% 1/10W	
R8020	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R8021	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R8022	1-216-839-11	METAL CHIP 33K 5% 1/10W	
R8023	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R8024	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R8025	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R8026	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R8029	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R8030	1-243-598-21	METAL OXIDE 68K 5% 2W	
R8031	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R8032	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R8033	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R8034	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R8035	1-218-847-11	METAL CHIP 1K 0.5% 1/10W	
R8036	1-214-800-11	METAL 2.2 1% 1/2W	
R8037	1-243-598-21	METAL OXIDE 68K 5% 2W	
R8038	1-216-809-11	METAL CHIP 100 5% 1/10W	
R8039	1-214-800-11	METAL 2.2 1% 1/2W	
R8040	1-243-535-21	METAL OXIDE 220 5% 3W	
R8041	1-218-867-11	METAL CHIP 6.8K 0.5% 1/10W	
R8042	1-216-826-11	METAL CHIP 2.7K 5% 1/10W	
R8043	1-218-895-11	METAL CHIP 100K 0.5% 1/10W	
R8044	1-218-863-11	METAL CHIP 4.7K 0.5% 1/10W	
R8045	1-214-808-11	METAL 4.7 1% 1/2W	
R8046	1-214-808-11	METAL 4.7 1% 1/2W	
R8047	1-215-857-11	METAL OXIDE 10 5% 1W	
R8048	1-216-864-11	SHORT CHIP 0	
R8050	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R8051	1-214-808-11	METAL 4.7 1% 1/2W	
R8053	1-214-808-11	METAL 4.7 1% 1/2W	
R8055	1-218-903-11	METAL CHIP 220K 0.5% 1/10W	
R8056	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R8057	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R8058	1-216-809-11	METAL CHIP 100 5% 1/10W	
R8059	1-214-808-11	METAL 4.7 1% 1/2W	
R8060	1-214-808-11	METAL 4.7 1% 1/2W	
R8061	1-243-508-21	METAL OXIDE 1.2 5% 3W	
R8062	1-260-107-11	CARBON 4.7K 5% 1/2W	
R8063	1-214-808-11	METAL 4.7 1% 1/2W	
R8064	1-214-808-11	METAL 4.7 1% 1/2W	
R8065	1-260-328-11	CARBON 1K 5% 1/2W	
R8066	1-214-808-11	METAL 4.7 1% 1/2W	
R8067	1-214-808-11	METAL 4.7 1% 1/2W	
R8068	1-216-809-11	METAL CHIP 100 5% 1/10W	
R8069	1-214-808-11	METAL 4.7 1% 1/2W	
R8070	1-214-808-11	METAL 4.7 1% 1/2W	
R8071	1-215-381-00	METAL 22 1% 1/4W	
R8073	1-214-808-11	METAL 4.7 1% 1/2W	
R8075	1-214-808-11	METAL 4.7 1% 1/2W	
R8076	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R8077	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R8078	1-214-808-11	METAL 4.7 1% 1/2W	
R8079	1-214-808-11	METAL 4.7 1% 1/2W	
R8080	1-216-353-00	METAL OXIDE 2.2 5% 1W	
R8081	1-214-808-11	METAL 4.7 1% 1/2W	
R8082	1-214-808-11	METAL 4.7 1% 1/2W	
R8083	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R8084	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R8085	1-214-808-11	METAL 4.7 1% 1/2W	
R8086	1-214-808-11	METAL 4.7 1% 1/2W	
R8087	1-249-385-11	CARBON 2.2 5% 1/4W	
R8088	1-249-385-11	CARBON 2.2 5% 1/4W	
R8089	1-214-808-11	METAL 4.7 1% 1/2W	
R8090	1-214-808-11	METAL 4.7 1% 1/2W	
R8091	1-214-808-11	METAL 4.7 1% 1/2W	
R8092	1-214-808-11	METAL 4.7 1% 1/2W	
R8093	1-214-808-11	METAL 4.7 1% 1/2W	
R8094	1-214-808-11	METAL 4.7 1% 1/2W	
R8095	1-216-801-11	METAL CHIP 22 5% 1/10W	
R8096	1-216-801-11	METAL CHIP 22 5% 1/10W	

REF.NO.	PART.NO	DESCRIPTION			REMARK
R8097	1-214-808-11	METAL	4.7	1%	1/2W
R8098	1-214-808-11	METAL	4.7	1%	1/2W
R8100	1-216-475-21	METAL OXIDE	120	5%	3W
R8101	1-216-475-21	METAL OXIDE	120	5%	3W
R8102	1-218-889-11	METAL CHIP	56K	0.5%	1/10W
R8103	1-216-816-11	METAL CHIP	390	5%	1/10W
R8104	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R8105	1-214-808-11	METAL	4.7	1%	1/2W
R8106	1-214-808-11	METAL	4.7	1%	1/2W
R8109	1-216-811-11	METAL CHIP	150	5%	1/10W
R8110	1-249-426-11	CARBON	5.6K	5%	1/4W
R8111	1-216-819-11	METAL CHIP	680	5%	1/10W
R8112	1-216-824-11	METAL CHIP	1.8K	5%	1/10W
R8113	1-216-475-21	METAL OXIDE	120	5%	3W
R8114	1-216-475-21	METAL OXIDE	120	5%	3W
R8115	1-216-475-21	METAL OXIDE	120	5%	3W
R8116	1-216-475-21	METAL OXIDE	120	5%	3W
R8117	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8118	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8119	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8120	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8121	1-216-809-11	METAL CHIP	100	5%	1/10W
R8123	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8124	1-249-377-11	CARBON	0.47	5%	1/4W
R8125	1-216-816-11	METAL CHIP	390	5%	1/10W
R8126	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R8127	1-243-801-21	METAL OXIDE	0.22	5%	1W
R8128	1-216-837-11	METAL CHIP	22K	5%	1/10W
R8129	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R8130	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R8131	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8132	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8133	1-243-618-21	METAL OXIDE	10K	5%	3W
R8134	1-243-709-21	METAL OXIDE	4.7K	5%	1W
R8135	1-243-618-21	METAL OXIDE	10K	5%	3W
R8136	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8137	1-218-895-11	METAL CHIP	100K	0.5%	1/10W
R8138	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8139	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R8140	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8141	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R8142	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8143	1-218-889-11	METAL CHIP	56K	0.5%	1/10W
R8144	1-216-809-11	METAL CHIP	100	5%	1/10W
R8145	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R8146	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R8147	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R8148	1-218-895-11	METAL CHIP	100K	0.5%	1/10W
R8149	1-249-401-11	CARBON	47	5%	1/4W
R8150	1-218-895-11	METAL CHIP	100K	0.5%	1/10W

REF.NO.	PART.NO	DESCRIPTION			REMARK
R8151	1-218-847-11	METAL CHIP	1K	0.5%	1/10W
R8152	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R8153	1-218-847-11	METAL CHIP	1K	0.5%	1/10W
R8154	1-218-883-11	METAL CHIP	33K	0.5%	1/10W
R8155	1-215-469-00	METAL	100K	1%	1/4W
R8156	1-215-469-00	METAL	100K	1%	1/4W
R8157	1-218-893-11	METAL CHIP	82K	0.5%	1/10W
R8159	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8161	1-216-845-11	METAL CHIP	100K	5%	1/10W
R8162	1-249-377-11	CARBON	0.47	5%	1/4W
R8163	1-216-845-11	METAL CHIP	100K	5%	1/10W
R8164	1-218-889-11	METAL CHIP	56K	0.5%	1/10W
R8165	1-249-425-11	CARBON	4.7K	5%	1/4W
R8166	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R8168	1-216-809-11	METAL CHIP	100	5%	1/10W
R8169	1-216-845-11	METAL CHIP	100K	5%	1/10W
R8170	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R8171	1-216-809-11	METAL CHIP	100	5%	1/10W
R8172	1-249-405-11	CARBON	100	5%	1/4W
R8173	1-216-845-11	METAL CHIP	100K	5%	1/10W
R8174	1-249-425-11	CARBON	4.7K	5%	1/4W
R8176	1-218-895-11	METAL CHIP	100K	0.5%	1/10W
R8178	1-216-841-11	METAL CHIP	47K	5%	1/10W
R8180	1-216-845-11	METAL CHIP	100K	5%	1/10W
R8181	1-216-845-11	METAL CHIP	100K	5%	1/10W
R8182	1-218-895-11	METAL CHIP	100K	0.5%	1/10W
R8183	1-218-895-11	METAL CHIP	100K	0.5%	1/10W
R8189	1-249-377-11	CARBON	0.47	5%	1/4W
R8190	1-215-429-00	METAL	2.2K	1%	1/4W
R8191	1-215-415-00	METAL	560	1%	1/4W
R8192	1-215-445-00	METAL	10K	1%	1/4W
R8193	1-215-445-00	METAL	10K	1%	1/4W
R8194	1-215-445-00	METAL	10K	1%	1/4W
R8195	1-215-445-00	METAL	10K	1%	1/4W
R8196	1-249-425-11	CARBON	4.7K	5%	1/4W
R8198	1-215-445-00	METAL	10K	1%	1/4W
R8201	1-249-397-11	CARBON	22	5%	1/4W
R8202	1-260-092-11	CARBON	270	5%	1/2W
R8203	1-216-809-11	METAL CHIP	100	5%	1/10W
R8204	1-216-809-11	METAL CHIP	100	5%	1/10W
R8205	1-249-377-11	CARBON	0.47	5%	1/4W
R8206	1-249-377-11	CARBON	0.47	5%	1/4W
R8208	1-260-288-11	CARBON	0.47	5%	1/2W
R8209	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8210	1-216-809-11	METAL CHIP	100	5%	1/10W
R8211	1-243-525-21	METAL OXIDE	33	5%	3W
R8212	1-243-523-21	METAL OXIDE	22	5%	3W
R8213	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8216	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8217	1-216-821-11	METAL CHIP	1K	5%	1/10W

Note : The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

REF.NO.	PART.NO	DESCRIPTION	REMARK
R8218	1-260-123-11	CARBON 100K 5% 1/2W	
R8219	1-249-377-11	CARBON 0.47 5% 1/4W	
R8220	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R8222	1-243-801-21	METAL OXIDE 0.22 5% 1W	
R8223	1-218-907-11	METAL CHIP 330K 0.5% 1/10W	
R8224	1-260-127-11	CARBON 220K 5% 1/2W	
R8225	1-260-292-11	CARBON 1 5% 1/2W	
R8228	1-260-314-11	CARBON 68 5% 1/2W	
R8230	1-218-906-11	METAL CHIP 300K 0.5% 1/10W	
R8232	1-216-809-11	METAL CHIP 100 5% 1/10W	
R8233	1-216-809-11	METAL CHIP 100 5% 1/10W	
R8234	1-216-809-11	METAL CHIP 100 5% 1/10W	
R8235	1-216-809-11	METAL CHIP 100 5% 1/10W	
R8236	1-218-917-11	METAL CHIP 820K 0.5% 1/10W	
R8237	1-216-857-11	METAL CHIP 1M 5% 1/10W	
R8242	1-216-864-11	SHORT CHIP 0	
R8243	1-216-809-11	METAL CHIP 100 5% 1/10W	
R8249	1-243-618-21	METAL OXIDE 10K 5% 3W	
R8250	1-243-618-21	METAL OXIDE 10K 5% 3W	
R8251	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R8253	1-216-816-11	METAL CHIP 390 5% 1/10W	
R8254	1-216-823-11	METAL CHIP 1.5K 5% 1/10W	
R8255	1-243-709-21	METAL OXIDE 4.7K 5% 1W	
R8256	1-249-401-11	CARBON 47 5% 1/4W	
R8258	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R8259	1-216-809-11	METAL CHIP 100 5% 1/10W	
R8260	1-216-837-11	METAL CHIP 22K 5% 1/10W	
R8261	1-218-895-11	METAL CHIP 100K 0.5% 1/10W	
R8262	1-216-845-11	METAL CHIP 100K 5% 1/10W	
R8263	1-216-845-11	METAL CHIP 100K 5% 1/10W	

< TRANSFORMER >

REF.NO.	PART.NO	DESCRIPTION	REMARK
T8001	1-437-708-11	TRANSFORMER, FERRITE (DFT)	
T8002	1-437-739-11	TRANSFORMER, FERRITE (HDT)	
T8003	1-437-401-11	TRANSFORMER, FERRITE (HOT)	
T8004	1-437-399-12	TRANSFORMER, FERRITE (LOT)	
T8005 ⚠	1-453-285-41	TRANSFORMER ASSY FLYBACK NX-4006//M3P4	
T8006	1-437-739-11	TRANSFORMER, FERRITE (HDT)	

< THERMISTOR >

REF.NO.	PART.NO	DESCRIPTION	REMARK
TH8001	1-800-193-00	THERMISTOR	
VR8001	1-225-627-91	RES, VAR, ADJ, CERMET 2K	
VR8002	1-225-630-91	RES, VAR, ADJ, CERMET 20K	

* A-1302-330-A J Board Complete

< CAPACITOR >

REF.NO.	PART.NO	DESCRIPTION	REMARK
C2604	1-164-227-11	CERAMIC CHIP 0.022UF	10.00% 25V
C2605	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V
C2606	1-164-227-11	CERAMIC CHIP 0.022UF	10.00% 25V
C2607	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V
C2608	1-165-908-11	CERAMIC CHIP 1UF	10% 10V
C2609	1-165-908-11	CERAMIC CHIP 1UF	10% 10V
C2610	1-126-947-11	ELECT 47UF	20.00% 35V
C2611	1-126-947-11	ELECT 47UF	20.00% 35V
C2612	1-125-837-91	CERAMIC CHIP 1UF	10% 6.3V
C2613	1-125-837-91	CERAMIC CHIP 1UF	10% 6.3V
C2614	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C2615	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C2620	1-164-227-11	CERAMIC CHIP 0.022UF	10.00% 25V
C2621	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V
C2622	1-164-227-11	CERAMIC CHIP 0.022UF	10.00% 25V
C2623	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V
C2624	1-165-908-11	CERAMIC CHIP 1UF	10% 10V
C2625	1-165-908-11	CERAMIC CHIP 1UF	10% 10V
C2626	1-126-947-11	ELECT 47UF	20.00% 35V
C2627	1-126-947-11	ELECT 47UF	20.00% 35V
C2632	1-164-227-11	CERAMIC CHIP 0.022UF	10.00% 25V
C2633	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V
C2634	1-164-227-11	CERAMIC CHIP 0.022UF	10.00% 25V
C2635	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V
C2636	1-165-908-11	CERAMIC CHIP 1UF	10% 10V
C2637	1-165-908-11	CERAMIC CHIP 1UF	10% 10V
C2638	1-126-947-11	ELECT 47UF	20.00% 35V
C2639	1-126-947-11	ELECT 47UF	20.00% 35V
C2655	1-165-908-11	CERAMIC CHIP 1UF	10% 10V
C2656	1-165-908-11	CERAMIC CHIP 1UF	10% 10V
C2657	1-162-923-11	CERAMIC CHIP 47PF	5.00% 50V
C2658	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C2659	1-126-964-11	ELECT 10UF	20.00% 50V
C2660	1-126-947-11	ELECT 47UF	20.00% 35V
C3608	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C3609	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C3610	1-126-947-11	ELECT 47UF	20.00% 35V
C3616	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3617	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C3618	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C3619	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C3620	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C3621	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3622	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3623	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C3624	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3625	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C3626	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3627	1-126-964-11	ELECT 10UF	20.00% 50V
C3631	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C3632	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3634	1-164-156-11	CERAMIC CHIP 0.1UF	25V

REF.NO.	PART.NO	DESCRIPTION	REMARK
C3636	1-126-947-11	ELECT 47UF	20.00% 35V
C3641	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3642	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3643	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3644	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3645	1-126-947-11	ELECT 47UF	20.00% 35V
C3646	1-126-947-11	ELECT 47UF	20.00% 35V
C3647	1-126-947-11	ELECT 47UF	20.00% 35V
C3648	1-126-947-11	ELECT 47UF	20.00% 35V
C3649	1-162-915-11	CERAMIC CHIP 10PF	50V
		< CONNECTOR >	
CN3600	* 1-564-523-11	PLUG, CONNECTOR 8P	
CN3601	1-695-549-11	SOCKET, PIN 21P	
CN3602	1-695-549-11	SOCKET, PIN 21P	
CN3603	1-695-549-11	SOCKET, PIN 21P	
CN3604	1-817-114-11	CONNECTOR, BOARD TO BOARD 35P	
		< DIODE >	
D0600	8-719-069-55	DIODE UDZSTE-175.6B	
D2600	8-719-069-60	DIODE UDZSTE-179.1B	
D2601	8-719-069-60	DIODE UDZSTE-179.1B	
D2602	8-719-069-60	DIODE UDZSTE-179.1B	
D2603	8-719-069-60	DIODE UDZSTE-179.1B	
D2604	8-719-069-60	DIODE UDZSTE-179.1B	
D2605	8-719-069-60	DIODE UDZSTE-179.1B	
D2606	8-719-069-60	DIODE UDZSTE-179.1B	
D2607	8-719-069-60	DIODE UDZSTE-179.1B	
D2608	8-719-069-60	DIODE UDZSTE-179.1B	
D2609	8-719-069-60	DIODE UDZSTE-179.1B	
D2610	8-719-069-60	DIODE UDZSTE-179.1B	
D2611	8-719-069-60	DIODE UDZSTE-179.1B	
D3602	8-719-069-60	DIODE UDZSTE-179.1B	
D3606	8-719-069-60	DIODE UDZSTE-179.1B	
D3614	8-719-083-63	DIODE UDZSTE-1713B	
D3615	8-719-069-60	DIODE UDZSTE-179.1B	
D3616	8-719-069-60	DIODE UDZSTE-179.1B	
D3617	8-719-069-60	DIODE UDZSTE-179.1B	
D3621	8-719-083-63	DIODE UDZSTE-1713B	
D3622	8-719-069-55	DIODE UDZSTE-175.6B	
D3623	8-719-069-60	DIODE UDZSTE-179.1B	
D3624	8-719-069-60	DIODE UDZSTE-179.1B	
D3626	8-719-069-60	DIODE UDZSTE-179.1B	
D3627	8-719-083-63	DIODE UDZSTE-1713B	
D3628	8-719-083-63	DIODE UDZSTE-1713B	
D3629	8-719-069-60	DIODE UDZSTE-179.1B	
D3630	8-719-069-60	DIODE UDZSTE-179.1B	
D3631	8-719-069-55	DIODE UDZSTE-175.6B	
D3632	8-719-069-60	DIODE UDZSTE-179.1B	
D3633	8-719-069-60	DIODE UDZSTE-179.1B	

REF.NO.	PART.NO	DESCRIPTION	REMARK
D3634	8-719-069-60	DIODE UDZSTE-179.1B	
D3635	8-719-069-60	DIODE UDZSTE-179.1B	
		< FERRITE BEAD >	
FB3611	1-414-760-21	FERRITE 0UH	
		< IC >	
IC3600	8-752-096-83	IC CXA2149AQ-TL	
		< COIL >	
L2602	1-414-928-21	INDUCTOR 1UH	
L3611	1-414-928-21	INDUCTOR 1UH	
L3612	1-414-928-21	INDUCTOR 1UH	
L3614	1-414-928-21	INDUCTOR 1UH	
		< TRANSISTOR >	
Q2602	8-729-010-29	TRANSISTOR MSD601-RST1	
Q2603	8-729-010-29	TRANSISTOR MSD601-RST1	
Q2604	8-729-010-29	TRANSISTOR MSD601-RST1	
Q3656	8-729-010-29	TRANSISTOR MSD601-RST1	
Q3657	8-729-010-29	TRANSISTOR MSD601-RST1	
Q3658	8-729-010-29	TRANSISTOR MSD601-RST1	
		< RESISTOR >	
JR2616	1-216-864-11	SHORT CHIP 0	
JR2617	1-216-864-11	SHORT CHIP 0	
JR2618	1-216-864-11	SHORT CHIP 0	
JR2628	1-216-864-11	SHORT CHIP 0	
JR3611	1-216-864-11	SHORT CHIP 0	
R0800	1-216-809-11	METAL CHIP 100 5%	1/10W
R0801	1-216-809-11	METAL CHIP 100 5%	1/10W
R0802	1-216-025-11	RES-CHIP 100 5%	1/10W
R2600	1-216-815-11	METAL CHIP 330 5%	1/10W
R2601	1-216-049-11	RES-CHIP 1K 5%	1/10W
R2602	1-216-815-11	METAL CHIP 330 5%	1/10W
R2603	1-216-049-11	RES-CHIP 1K 5%	1/10W
R2604	1-216-813-11	METAL CHIP 220 5%	1/10W
R2605	1-216-864-11	SHORT CHIP 0	
R2606	1-216-813-11	METAL CHIP 220 5%	1/10W
R2607	1-216-864-11	SHORT CHIP 0	
R2608	1-216-853-11	METAL CHIP 470K 5%	1/10W
R2609	1-216-853-11	METAL CHIP 470K 5%	1/10W
R2610	1-216-853-11	METAL CHIP 470K 5%	1/10W
R2611	1-216-853-11	METAL CHIP 470K 5%	1/10W
R2612	1-216-813-11	METAL CHIP 220 5%	1/10W
R2613	1-216-813-11	METAL CHIP 220 5%	1/10W
R2614	1-216-864-11	SHORT CHIP 0	
R2615	1-216-864-11	SHORT CHIP 0	
R2616	1-216-864-11	SHORT CHIP 0	

REF.NO.	PART.NO	DESCRIPTION			REMARK
R2617	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2618	1-216-864-11	SHORT CHIP	0		
R2619	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2620	1-216-837-11	METAL CHIP	22K	5%	1/10W
R2621	1-216-837-11	METAL CHIP	22K	5%	1/10W
R2622	1-216-837-11	METAL CHIP	22K	5%	1/10W
R2623	1-216-837-11	METAL CHIP	22K	5%	1/10W
R2624	1-216-815-11	METAL CHIP	330	5%	1/10W
R2625	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2626	1-216-815-11	METAL CHIP	330	5%	1/10W
R2627	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2628	1-216-864-11	SHORT CHIP	0		
R2630	1-216-864-11	SHORT CHIP	0		
R2632	1-216-853-11	METAL CHIP	470K	5%	1/10W
R2633	1-216-853-11	METAL CHIP	470K	5%	1/10W
R2634	1-216-853-11	METAL CHIP	470K	5%	1/10W
R2635	1-216-853-11	METAL CHIP	470K	5%	1/10W
R2636	1-216-815-11	METAL CHIP	330	5%	1/10W
R2637	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2638	1-216-815-11	METAL CHIP	330	5%	1/10W
R2639	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2640	1-216-813-11	METAL CHIP	220	5%	1/10W
R2642	1-216-813-11	METAL CHIP	220	5%	1/10W
R2644	1-216-853-11	METAL CHIP	470K	5%	1/10W
R2645	1-216-853-11	METAL CHIP	470K	5%	1/10W
R2646	1-216-853-11	METAL CHIP	470K	5%	1/10W
R2647	1-216-853-11	METAL CHIP	470K	5%	1/10W
R2648	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2649	1-216-837-11	METAL CHIP	22K	5%	1/10W
R2650	1-216-837-11	METAL CHIP	22K	5%	1/10W
R3600	1-216-022-00	RES-CHIP	75	5%	1/10W
R3601	1-216-022-00	RES-CHIP	75	5%	1/10W
R3602	1-216-022-00	RES-CHIP	75	5%	1/10W
R3603	1-216-022-00	RES-CHIP	75	5%	1/10W
R3604	1-216-022-00	RES-CHIP	75	5%	1/10W
R3605	1-216-025-11	RES-CHIP	100	5%	1/10W
R3607	1-216-025-11	RES-CHIP	100	5%	1/10W
R3608	1-216-025-11	RES-CHIP	100	5%	1/10W
R3609	1-216-025-11	RES-CHIP	100	5%	1/10W
R3610	1-216-025-11	RES-CHIP	100	5%	1/10W
R3611	1-216-022-00	RES-CHIP	75	5%	1/10W
R3612	1-216-025-11	RES-CHIP	100	5%	1/10W
R3613	1-216-022-00	RES-CHIP	75	5%	1/10W
R3614	1-216-025-11	RES-CHIP	100	5%	1/10W
R3615	1-216-022-00	RES-CHIP	75	5%	1/10W
R3616	1-216-022-00	RES-CHIP	75	5%	1/10W
R3617	1-216-022-00	RES-CHIP	75	5%	1/10W
R3618	1-216-022-00	RES-CHIP	75	5%	1/10W
R3619	1-216-025-11	RES-CHIP	100	5%	1/10W
R3621	1-216-025-11	RES-CHIP	100	5%	1/10W

REF.NO.	PART.NO	DESCRIPTION			REMARK
R3622	1-216-025-11	RES-CHIP	100	5%	1/10W
R3623	1-216-025-11	RES-CHIP	100	5%	1/10W
R3624	1-216-022-00	RES-CHIP	75	5%	1/10W
R3625	1-216-025-11	RES-CHIP	100	5%	1/10W
R3626	1-216-022-00	RES-CHIP	75	5%	1/10W
R3627	1-216-022-00	RES-CHIP	75	5%	1/10W
R3628	1-216-022-00	RES-CHIP	75	5%	1/10W
R3629	1-216-022-00	RES-CHIP	75	5%	1/10W
R3630	1-216-025-11	RES-CHIP	100	5%	1/10W
R3631	1-216-809-11	METAL CHIP	100	5%	1/10W
R3632	1-216-809-11	METAL CHIP	100	5%	1/10W
R3634	1-216-022-00	RES-CHIP	75	5%	1/10W
R3635	1-216-025-11	RES-CHIP	100	5%	1/10W
R3636	1-216-025-11	RES-CHIP	100	5%	1/10W
R3637	1-216-022-00	RES-CHIP	75	5%	1/10W
R3638	1-216-025-11	RES-CHIP	100	5%	1/10W
R3639	1-216-843-11	METAL CHIP	68K	5%	1/10W
R3641	1-216-843-11	METAL CHIP	68K	5%	1/10W
R3643	1-218-885-11	METAL CHIP	39K	0.5%	1/10W
R3647	1-216-864-11	SHORT CHIP	0		
R3652	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3653	1-216-841-11	METAL CHIP	47K	5%	1/10W
R3654	1-216-837-11	METAL CHIP	22K	5%	1/10W
R3655	1-216-837-11	METAL CHIP	22K	5%	1/10W
R3656	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3657	1-216-841-11	METAL CHIP	47K	5%	1/10W
R3658	1-216-837-11	METAL CHIP	22K	5%	1/10W
R3659	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3660	1-216-841-11	METAL CHIP	47K	5%	1/10W
R3661	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R3662	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R3663	1-216-805-11	METAL CHIP	47	5%	1/10W

* A-1302-951-A A Board Complete

	4-382-854-01	SCREW (M3X8), P, SW (+)			

< CAPACITOR >

C1103	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C1104	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C1105	1-126-967-11	ELECT	47UF	20.00%	50V
C1106	1-162-968-11	CERAMIC CHIP	0.0047UF	10.00%	50V
C1107	1-126-933-11	ELECT	100UF	20.00%	16V
C1108	1-162-921-11	CERAMIC CHIP	33PF	5.00%	50V
C1109	1-162-921-11	CERAMIC CHIP	33PF	5.00%	50V
C1300	1-162-968-11	CERAMIC CHIP	0.0047UF	10.00%	50V
C1302	1-216-864-11	SHORT CHIP	0		
C1303	1-162-928-11	CERAMIC CHIP	120PF	5.00%	50V
C1304	1-216-864-11	SHORT CHIP	0		
C1307	1-125-891-11	CERAMIC CHIP	0.47UF	10.00%	10V

REF.NO.	PART.NO	DESCRIPTION	REMARK
C2000	1-126-947-11	ELECT 47UF	20.00% 35V
C2001	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C2002	1-126-947-11	ELECT 47UF	20.00% 35V
C2004	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C2005	1-127-715-91	CERAMIC CHIP 0.22UF	10% 16V
C2006	1-126-947-11	ELECT 47UF	20.00% 35V
C2007	1-162-966-11	CERAMIC CHIP 0.0022UF	10.00% 50V
C2009	1-127-715-91	CERAMIC CHIP 0.22UF	10% 16V
C2010	1-127-715-91	CERAMIC CHIP 0.22UF	10% 16V
C2011	1-162-966-11	CERAMIC CHIP 0.0022UF	10.00% 50V
C2012	1-162-966-11	CERAMIC CHIP 0.0022UF	10.00% 50V
C2013	1-162-966-11	CERAMIC CHIP 0.0022UF	10.00% 50V
C2014	1-127-715-91	CERAMIC CHIP 0.22UF	10% 16V
C2016	1-162-927-11	CERAMIC CHIP 100PF	5.00% 50V
C2017	1-126-964-11	ELECT 10UF	20.00% 50V
C2018	1-126-964-11	ELECT 10UF	20.00% 50V
C2019	1-126-947-11	ELECT 47UF	20.00% 35V
C2020	1-126-947-11	ELECT 47UF	20.00% 35V
C2021	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C2022	1-126-964-11	ELECT 10UF	20.00% 50V
C2023	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C2024	1-126-964-11	ELECT 10UF	20.00% 50V
C2026	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C2027	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C2028	1-162-906-11	CERAMIC CHIP 1.5PF	0.25PF 50V
C2029	1-162-906-11	CERAMIC CHIP 1.5PF	0.25PF 50V
C2030	1-127-715-91	CERAMIC CHIP 0.22UF	10% 16V
C2031	1-127-715-91	CERAMIC CHIP 0.22UF	10% 16V
C2032	1-127-715-91	CERAMIC CHIP 0.22UF	10% 16V
C2040	1-162-927-11	CERAMIC CHIP 100PF	5.00% 50V
C2200	1-126-960-11	ELECT 1UF	20.00% 50V
C2201	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C2202	1-126-960-11	ELECT 1UF	20.00% 50V
C2203	1-126-963-11	ELECT 4.7UF	20.00% 50V
C2204	1-126-960-11	ELECT 1UF	20.00% 50V
C2205	1-126-960-11	ELECT 1UF	20.00% 50V
C2206	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V
C2207	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V
C2300	1-126-935-11	ELECT 470UF	20.00% 16V
C2301	1-126-947-11	ELECT 47UF	20.00% 35V
C2302	1-126-947-11	ELECT 47UF	20.00% 35V
C2303	1-126-947-11	ELECT 47UF	20.00% 35V
C2304	1-126-947-11	ELECT 47UF	20.00% 35V
C2305	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C2306	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C2500	1-107-914-11	ELECT 1000UF	20.00% 50V
C2501	1-107-914-11	ELECT 1000UF	20.00% 50V
C2502	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C2503	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C2504	1-126-959-11	ELECT 0.47UF	20.00% 50V
C2505	1-107-888-11	ELECT 47UF	20.00% 25V
C2506	1-107-888-11	ELECT 47UF	20.00% 25V
C2507	1-126-959-11	ELECT 0.47UF	20.00% 50V
C2508	1-115-339-11	CERAMIC CHIP 0.1UF	10.00% 50V
C2512	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C2513	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C2514	1-107-907-11	ELECT 22UF	20.00% 50V
C2515	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C2603	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C2619	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C5201	1-126-947-11	ELECT 47UF	20.00% 35V
C5202	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C5204	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C5205	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V
C5206	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V
C5207	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V
C5208	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V
C5209	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V
C5210	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V
C5214	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V
C5215	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V
C5217	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V
C5218	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V
C5222	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C5223	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C5224	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C5225	1-164-245-11	CERAMIC CHIP 0.015UF	10.00% 25V
C5226	1-125-891-11	CERAMIC CHIP 0.47UF	10.00% 10V
C6200	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C6201	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C6203	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C6204	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C6206	1-104-665-11	ELECT 100UF	20.00% 25V
C6207	1-104-665-11	ELECT 100UF	20.00% 25V
C6208	1-126-767-11	ELECT 1000UF	20.00% 16V
C6209	1-104-665-11	ELECT 100UF	20.00% 25V
C6210	1-104-665-11	ELECT 100UF	20.00% 25V
C6234	1-136-497-81	FILM 0.1UF	5.00% 50V
C6235	1-126-953-11	ELECT 2200UF	20.00% 35V
C6236	1-128-942-31	ELECT 1000UF	20% 6.3V
C6237	1-126-767-11	ELECT 1000UF	20.00% 16V
C6238	1-136-497-81	FILM 0.1UF	5.00% 50V
C6239	1-104-665-11	ELECT 100UF	20.00% 25V
C6240	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C6241	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C6242	1-104-665-11	ELECT 100UF	20.00% 25V
C6243	1-104-665-11	ELECT 100UF	20.00% 25V
C6244	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C6245	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C6246	1-104-665-11	ELECT 100UF	20.00% 25V

REF.NO.	PART.NO	DESCRIPTION	REMARK
C6247	1-104-665-11	ELECT 100UF	20.00% 25V
C6248	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C6249	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C6250	1-104-665-11	ELECT 100UF	20.00% 25V
C6251	1-104-665-11	ELECT 100UF	20.00% 25V
C6252	1-126-963-11	ELECT 4.7UF	20.00% 50V
C6253	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C6254	1-137-374-11	MYLAR 0.047UF	5.00% 50V
C6255	1-126-935-11	ELECT 470UF	20.00% 16V
C6256	1-126-947-11	ELECT 47UF	20.00% 35V

< CONNECTOR >

REF.NO.	PART.NO	DESCRIPTION	REMARK
CN0001	* 1-816-977-51	PLUG, CONNECTOR 6P	
CN2300	* 1-564-510-11	PLUG, CONNECTOR 7P	
CN2501	* 1-564-507-11	PLUG, CONNECTOR 4P	
CN3002	* 1-817-115-11	CONNECTOR, BOARD TO BOARD 35P	
CN3011	1-691-771-11	PLUG (MICRO CONNECTOR) 9P	
CN3012	1-691-770-11	PLUG (MICRO CONNECTOR) 8P	
CN3013	* 1-564-507-11	PLUG, CONNECTOR 4P	
CN5207	* 1-818-034-11	DIN CONNECTOR PLUG 96P	
CN5209	* 1-564-520-11	PLUG, CONNECTOR 5P	
CN6200	* 1-816-983-71	PLUG, CONNECTOR 6P	
CN6202	* 1-816-984-71	PLUG, CONNECTOR 7P	
CN6203	1-695-915-11	TAB (CONTACT)	
CN6207	* 1-691-772-11	PLUG (MICRO CONNECTOR) 10P	
CN8511	* 1-816-978-51	PLUG, CONNECTOR 7P	

< DIODE >

REF.NO.	PART.NO	DESCRIPTION	REMARK
D2002	8-719-081-97	DIODE MMDL914T1	
D2200	8-719-929-15	DIODE HZS9.1NB2	
D2201	8-719-929-15	DIODE HZS9.1NB2	
D2202	8-719-050-38	DIODE M1MA152WK-T1	
D2500	8-719-050-38	DIODE M1MA152WK-T1	
D5200	8-719-081-97	DIODE MMDL914T1	
D5201	8-719-081-98	DIODE MM3Z6V8T1	
D5202	8-719-081-97	DIODE MMDL914T1	
D5203	8-719-081-97	DIODE MMDL914T1	
D5204	8-719-081-97	DIODE MMDL914T1	
D5205	8-719-081-97	DIODE MMDL914T1	
D5206	8-719-081-97	DIODE MMDL914T1	
D5207	8-719-081-97	DIODE MMDL914T1	
D5208	8-719-081-97	DIODE MMDL914T1	
D5213	8-719-081-97	DIODE MMDL914T1	
D5214	1-216-821-11	METAL CHIP 1K 5%	1/10W
D5215	8-719-081-97	DIODE MMDL914T1	
D6203	8-719-063-70	DIODE D1NL20U	
D6204	8-719-063-70	DIODE D1NL20U	
D6205	8-719-050-38	DIODE M1MA152WK-T1	
D6206	8-719-081-97	DIODE MMDL914T1	
D6207	8-719-081-97	DIODE MMDL914T1	
D6208	8-719-081-97	DIODE MMDL914T1	
D6209	8-719-081-97	DIODE MMDL914T1	
D6210	8-719-110-41	DIODE RD15ESB2	
D6211	8-719-080-59	DIODE EK19-V0	
D6213	8-719-022-97	DIODE D2S4MF	
D6214	8-719-056-84	DIODE UDZ-TE-17-7.5B	

< FERRITE BEAD >

REF.NO.	PART.NO	DESCRIPTION	REMARK
FB6204	1-535-303-00	LEAD, JUMPER (5.0MM)	

< IC >

REF.NO.	PART.NO	DESCRIPTION	REMARK
IC2000	6-701-031-11	IC MSP3411G-QA-B11	
IC2200	8-759-100-96	IC UPC4558G2	
IC2300	8-759-576-76	IC TDA2822D013TR	
IC2500	8-759-190-89	IC TDA7265	
IC6200	8-759-648-20	IC L7805CV/LSY	
IC6201	8-759-445-59	IC BA033T	
IC6202	8-759-640-19	IC PQ1CG2032FZ	
IC6204	8-759-648-19	IC L7809CV/LSY	
IC6210	8-759-445-59	IC BA033T	
IC6211	6-701-848-01	IC KF25BDT	
IC6212	8-759-474-09	IC SI-8050S-LF1101	

< SOCKET >

REF.NO.	PART.NO	DESCRIPTION	REMARK
J2200	1-784-632-11	JACK, PIN 2P	

< COIL >

REF.NO.	PART.NO	DESCRIPTION	REMARK
L1100	1-414-760-21	FERRITE 0UH	
L1101	1-414-760-21	FERRITE 0UH	
L1102	1-408-615-31	INDUCTOR 100UH	
L1103	1-408-603-31	INDUCTOR 10UH	
L1104	1-412-979-21	INDUCTOR 1UH	
L1300	1-535-303-00	LEAD, JUMPER (5.0MM)	
L1301	1-408-602-31	INDUCTOR 8.2UH	
L2000	1-414-928-21	INDUCTOR 1UH	
L2001	1-414-928-21	INDUCTOR 1UH	
L2011	1-414-928-21	INDUCTOR 1UH	
L2500	1-535-303-00	LEAD, JUMPER (5.0MM)	
L2501	1-535-303-00	LEAD, JUMPER (5.0MM)	
L5401	1-535-303-00	LEAD, JUMPER (5.0MM)	
L5402	1-535-303-00	LEAD, JUMPER (5.0MM)	
L6211	1-535-303-00	LEAD, JUMPER (5.0MM)	
L6213	1-412-539-11	INDUCTOR 150UH	
L6218	1-419-743-12	INDUCTOR 100UH	
L6219	1-406-971-11	INDUCTOR 10UH	

< PROTECTOR MODULE >

REF.NO.	PART.NO	DESCRIPTION	REMARK
PS2000	1-535-303-00	LEAD, JUMPER (5.0MM)	
PS2001	1-535-303-00	LEAD, JUMPER (5.0MM)	

< TRANSISTOR >

REF.NO.	PART.NO	DESCRIPTION	REMARK
Q0100	8-729-028-28	TRANSISTOR 2SK2036(TE85L)	
Q0200	8-729-028-28	TRANSISTOR 2SK2036(TE85L)	
Q0201	8-729-028-28	TRANSISTOR 2SK2036(TE85L)	
Q1100	8-729-010-29	TRANSISTOR MSD601-RST1	
Q1300	8-729-010-29	TRANSISTOR MSD601-RST1	
Q1301	8-729-010-05	TRANSISTOR MSB709-RT1	
Q2000	8-729-010-29	TRANSISTOR MSD601-RST1	
Q2200	8-729-010-05	TRANSISTOR MSB709-RT1	
Q2201	8-729-010-29	TRANSISTOR MSD601-RST1	
Q2202	8-729-010-29	TRANSISTOR MSD601-RST1	
Q2300	8-729-010-05	TRANSISTOR MSB709-RT1	
Q2301	8-729-010-29	TRANSISTOR MSD601-RST1	
Q2302	8-729-010-29	TRANSISTOR MSD601-RST1	
Q2500	8-729-010-29	TRANSISTOR MSD601-RST1	
Q2501	8-729-010-29	TRANSISTOR MSD601-RST1	
Q2502	8-729-010-29	TRANSISTOR MSD601-RST1	
Q2503	8-729-010-29	TRANSISTOR MSD601-RST1	
Q2504	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q5200	8-729-010-05	TRANSISTOR MSB709-RT1	
Q5201	8-729-010-29	TRANSISTOR MSD601-RST1	
Q5202	8-729-010-05	TRANSISTOR MSB709-RT1	
Q5203	8-729-010-29	TRANSISTOR MSD601-RST1	
Q5204	8-729-010-05	TRANSISTOR MSB709-RT1	
Q5205	8-729-010-29	TRANSISTOR MSD601-RST1	
Q5206	8-729-010-05	TRANSISTOR MSB709-RT1	
Q5207	8-729-010-29	TRANSISTOR MSD601-RST1	
Q5212	8-729-010-05	TRANSISTOR MSB709-RT1	
Q5213	8-729-010-29	TRANSISTOR MSD601-RST1	
Q5214	8-729-010-29	TRANSISTOR MSD601-RST1	
Q5215	8-729-010-05	TRANSISTOR MSB709-RT1	
Q5216	8-729-010-29	TRANSISTOR MSD601-RST1	
Q6201	8-729-010-29	TRANSISTOR MSD601-RST1	
Q6202	8-729-010-05	TRANSISTOR MSB709-RT1	
Q6203	8-729-010-29	TRANSISTOR MSD601-RST1	
Q6204	8-729-010-05	TRANSISTOR MSB709-RT1	
Q6205	8-729-010-05	TRANSISTOR MSB709-RT1	
Q6206	8-729-010-29	TRANSISTOR MSD601-RST1	
Q6207	8-729-010-29	TRANSISTOR MSD601-RST1	
Q6208	8-729-010-29	TRANSISTOR MSD601-RST1	
Q6209	8-729-010-29	TRANSISTOR MSD601-RST1	

< RESISTOR >

REF.NO.	PART.NO	DESCRIPTION	REMARK
JR3000	1-216-864-11	SHORT CHIP 0	
JR3002	1-216-864-11	SHORT CHIP 0	
JR3005	1-216-864-11	SHORT CHIP 0	
JR3007	1-216-864-11	SHORT CHIP 0	
JR3008	1-216-864-11	SHORT CHIP 0	
JR3010	1-216-864-11	SHORT CHIP 0	
JR6011	1-216-864-11	SHORT CHIP 0	
JR6012	1-216-864-11	SHORT CHIP 0	
JR6014	1-216-864-11	SHORT CHIP 0	
JR6015	1-216-864-11	SHORT CHIP 0	
JR6016	1-216-864-11	SHORT CHIP 0	
JR6017	1-216-864-11	SHORT CHIP 0	
JR6018	1-216-864-11	SHORT CHIP 0	
JR6019	1-216-864-11	SHORT CHIP 0	
JR6020	1-216-864-11	SHORT CHIP 0	
JR6021	1-216-864-11	SHORT CHIP 0	
JR6022	1-216-864-11	SHORT CHIP 0	
JR6024	1-216-864-11	SHORT CHIP 0	
JR6026	1-216-864-11	SHORT CHIP 0	
JR6028	1-216-864-11	SHORT CHIP 0	
JR6029	1-216-864-11	SHORT CHIP 0	
JR8002	1-216-864-11	SHORT CHIP 0	
JR8003	1-216-864-11	SHORT CHIP 0	
R0001	1-216-864-11	SHORT CHIP 0	
R0100	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R0102	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R0103	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R0200	1-216-827-11	METAL CHIP 3.3K 5% 1/10W	
R0201	1-216-827-11	METAL CHIP 3.3K 5% 1/10W	
R0202	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R0204	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R0205	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R0207	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R1100	1-216-864-11	SHORT CHIP 0	
R1102	1-216-864-11	SHORT CHIP 0	
R1103	1-216-864-11	SHORT CHIP 0	
R1105	1-216-864-11	SHORT CHIP 0	
R1106	1-216-864-11	SHORT CHIP 0	
R1108	1-216-864-11	SHORT CHIP 0	
R1110	1-216-836-11	METAL CHIP 18K 5% 1/10W	
R1111	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R1300	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R1303	1-216-805-11	METAL CHIP 47 5% 1/10W	
R1304	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R2000	1-414-760-21	FERRITE 0UH	
R2001	1-414-760-21	FERRITE 0UH	
R2002	1-216-845-11	METAL CHIP 100K 5% 1/10W	
R2003	1-216-864-11	SHORT CHIP 0	
R2004	1-216-864-11	SHORT CHIP 0	
R2005	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R2006	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R2007	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R2008	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R2022	1-216-845-11	METAL CHIP 100K 5% 1/10W	
R2025	1-216-864-11	SHORT CHIP 0	

REF.NO.	PART.NO	DESCRIPTION			REMARK
R2026	1-216-809-11	METAL CHIP	100	5%	1/10W
R2029	1-216-864-11	SHORT CHIP	0		
R2030	1-216-864-11	SHORT CHIP	0		
R2200	1-216-837-11	METAL CHIP	22K	5%	1/10W
R2201	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2202	1-216-837-11	METAL CHIP	22K	5%	1/10W
R2203	1-216-839-11	METAL CHIP	33K	5%	1/10W
R2204	1-216-839-11	METAL CHIP	33K	5%	1/10W
R2205	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2206	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2207	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2208	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2209	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2211	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2213	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2214	1-216-817-11	METAL CHIP	470	5%	1/10W
R2216	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2217	1-216-817-11	METAL CHIP	470	5%	1/10W
R2218	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2220	1-216-864-11	SHORT CHIP	0		
R2221	1-216-864-11	SHORT CHIP	0		
R2300	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2301	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2302	1-216-805-11	METAL CHIP	47	5%	1/10W
R2303	1-216-805-11	METAL CHIP	47	5%	1/10W
R2304	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2305	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2306	1-216-837-11	METAL CHIP	22K	5%	1/10W
R2307	1-216-837-11	METAL CHIP	22K	5%	1/10W
R2308	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2309	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2310	1-249-389-11	CARBON	4.7	5%	1/4W
R2311	1-216-809-11	METAL CHIP	100	5%	1/10W
R2312	1-249-389-11	CARBON	4.7	5%	1/4W
R2313	1-216-813-11	METAL CHIP	220	5%	1/10W
R2314	1-216-809-11	METAL CHIP	100	5%	1/10W
R2315	1-216-813-11	METAL CHIP	220	5%	1/10W
R2316	1-216-809-11	METAL CHIP	100	5%	1/10W
R2317	1-216-809-11	METAL CHIP	100	5%	1/10W
R2500	1-216-089-91	RES-CHIP	47K	5%	1/10W
R2501	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2502	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2503	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2504	1-216-089-91	RES-CHIP	47K	5%	1/10W
R2505	1-216-049-11	RES-CHIP	1K	5%	1/10W
R2506	1-216-079-00	RES-CHIP	18K	5%	1/10W
R2507	1-216-079-00	RES-CHIP	18K	5%	1/10W
R2508	1-216-809-11	METAL CHIP	100	5%	1/10W
R2509	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2511	1-216-837-11	METAL CHIP	22K	5%	1/10W
R2512	1-216-835-11	METAL CHIP	15K	5%	1/10W
R2514	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R2515	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2516	1-216-845-11	METAL CHIP	100K	5%	1/10W
R2517	1-216-864-11	SHORT CHIP	0		
R2518	1-216-081-00	RES-CHIP	22K	5%	1/10W
R2519	1-216-845-11	METAL CHIP	100K	5%	1/10W
R2520	1-216-845-11	METAL CHIP	100K	5%	1/10W
R2521	1-243-826-21	METAL OXIDE	4.7	5%	1W
R2522	1-243-826-21	METAL OXIDE	4.7	5%	1W
R2523	1-216-841-11	METAL CHIP	47K	5%	1/10W
R2524	1-216-864-11	SHORT CHIP	0		
R2525	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2526	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R5201	1-216-812-11	METAL CHIP	180	5%	1/10W
R5202	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R5203	1-218-859-11	METAL CHIP	3.3K	0.5%	1/10W
R5205	1-216-864-11	SHORT CHIP	0		
R5206	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5207	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5209	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5210	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5212	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5213	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5214	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5215	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5216	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5217	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R5218	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5219	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5220	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5221	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R5222	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5223	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5224	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5225	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R5226	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5227	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5228	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5229	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5230	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5231	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R5232	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5233	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5234	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5235	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5236	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5237	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5238	1-216-839-11	METAL CHIP	33K	5%	1/10W
R5239	1-216-839-11	METAL CHIP	33K	5%	1/10W

REF.NO.	PART.NO	DESCRIPTION			REMARK
R5240	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5257	1-216-809-11	METAL CHIP	100	5%	1/10W
R5258	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5259	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5260	1-216-821-11	METAL CHIP	1K	5%	1/10W
R5261	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5262	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5263	1-216-809-11	METAL CHIP	100	5%	1/10W
R5264	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5265	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5266	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5267	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5268	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5269	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5270	1-216-817-11	METAL CHIP	470	5%	1/10W
R6213	1-535-303-00	LEAD, JUMPER (5.0MM)			
R6214	1-216-864-11	SHORT CHIP	0		
R6215	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6216	1-216-821-11	METAL CHIP	1K	5%	1/10W
R6217	1-216-821-11	METAL CHIP	1K	5%	1/10W
R6218	1-216-837-11	METAL CHIP	22K	5%	1/10W
R6219	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R6220	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6221	1-216-845-11	METAL CHIP	100K	5%	1/10W
R6222	1-216-864-11	SHORT CHIP	0		
R6223	1-216-846-11	METAL CHIP	120K	5%	1/10W
R6224	1-218-877-11	METAL CHIP	18K	0.5%	1/10W
R6225	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R6226	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6227	1-218-899-11	METAL CHIP	150K	0.5%	1/16W
R6228	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6229	1-216-845-11	METAL CHIP	100K	5%	1/10W
R6230	1-216-845-11	METAL CHIP	100K	5%	1/10W
R6231	1-218-879-11	METAL CHIP	22K	0.5%	1/10W
R6232	1-216-864-11	SHORT CHIP	0		
R6238	1-216-864-11	SHORT CHIP	0		
R6244	1-218-847-11	METAL CHIP	1K	0.5%	1/10W
R6246	1-218-839-11	METAL CHIP	470	0.5%	1/10W
R6247	1-216-864-11	SHORT CHIP	0		
R6248	1-216-841-11	METAL CHIP	47K	5%	1/10W
R6249	1-216-841-11	METAL CHIP	47K	5%	1/10W
R6250	1-216-841-11	METAL CHIP	47K	5%	1/10W
R8005	1-216-809-11	METAL CHIP	100	5%	1/10W
R8007	1-216-809-11	METAL CHIP	100	5%	1/10W
R8008	1-216-809-11	METAL CHIP	100	5%	1/10W
R8009	1-216-809-11	METAL CHIP	100	5%	1/10W
R8010	1-216-809-11	METAL CHIP	100	5%	1/10W
R8011	1-216-809-11	METAL CHIP	100	5%	1/10W
R8012	1-216-809-11	METAL CHIP	100	5%	1/10W
R8013	1-216-809-11	METAL CHIP	100	5%	1/10W
R8014	1-216-809-11	METAL CHIP	100	5%	1/10W
R8015	1-216-809-11	METAL CHIP	100	5%	1/10W
R8016	1-216-809-11	METAL CHIP	100	5%	1/10W
R8017	1-216-809-11	METAL CHIP	100	5%	1/10W

< TUNER >

REF.NO.	PART.NO	DESCRIPTION
TU1100	8-598-535-20	FRONTEND BTF-EF411

< CRYSTAL >

REF.NO.	PART.NO	DESCRIPTION
X2000	1-760-628-11	VIBRATOR, CRYSTAL

* A-1302-952-A B Board Complete

REF.NO.	PART.NO	DESCRIPTION
	1-785-449-12	SOCKET, IC
	4-087-203-01	PLASTIC RIVET

< CAPACITOR >

REF.NO.	PART.NO	DESCRIPTION			REMARK
C0005	1-162-921-11	CERAMIC CHIP	33PF	5.00%	50V
C0006	1-162-921-11	CERAMIC CHIP	33PF	5.00%	50V
C0007	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C0008	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C0009	1-162-923-11	CERAMIC CHIP	47PF	5.00%	50V
C0011	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C0013	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C0015	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C0016	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C0017	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C0018	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C0020	1-126-947-11	ELECT	47UF	20.00%	35V
C0021	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C0023	1-126-933-11	ELECT	100UF	20.00%	16V
C0025	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C0026	1-126-947-11	ELECT	47UF	20.00%	35V
C0028	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C0029	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C0032	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C0033	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C0035	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C0038	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C0039	1-126-947-11	ELECT	47UF	20.00%	35V
C0041	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C0043	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C0045	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C0047	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C0048	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C0051	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C0053	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C0054	1-126-947-11	ELECT	47UF	20.00%	35V
C0055	1-126-947-11	ELECT	47UF	20.00%	35V
C0056	1-164-156-11	CERAMIC CHIP	0.1UF		25V

REF.NO.	PART.NO	DESCRIPTION	REMARK
C0059	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C0060	1-164-230-11	CERAMIC CHIP 220PF	5.00% 50V
C0061	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C0062	1-126-947-11	ELECT 47UF	20.00% 35V
C0063	1-164-230-11	CERAMIC CHIP 220PF	5.00% 50V
C0064	1-164-230-11	CERAMIC CHIP 220PF	5.00% 50V
C0065	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C0066	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3101	1-127-715-91	CERAMIC CHIP 0.22UF	10% 16V
C3102	1-127-715-91	CERAMIC CHIP 0.22UF	10% 16V
C3103	1-127-715-91	CERAMIC CHIP 0.22UF	10% 16V
C3104	1-127-715-91	CERAMIC CHIP 0.22UF	10% 16V
C3107	1-165-176-11	CERAMIC CHIP 0.047UF	10.00% 16V
C3108	1-165-176-11	CERAMIC CHIP 0.047UF	10.00% 16V
C3109	1-165-176-11	CERAMIC CHIP 0.047UF	10.00% 16V
C3110	1-165-176-11	CERAMIC CHIP 0.047UF	10.00% 16V
C3116	1-127-715-91	CERAMIC CHIP 0.22UF	10% 16V
C3117	1-127-715-91	CERAMIC CHIP 0.22UF	10% 16V
C3121	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3122	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3123	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3124	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3127	1-165-176-11	CERAMIC CHIP 0.047UF	10.00% 16V
C3129	1-165-176-11	CERAMIC CHIP 0.047UF	10.00% 16V
C3130	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3131	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3132	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3133	1-126-947-11	ELECT 47UF	20.00% 35V
C3134	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3135	1-162-919-11	CERAMIC CHIP 22PF	5.00% 50V
C3136	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3137	1-162-919-11	CERAMIC CHIP 22PF	5.00% 50V
C3138	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3139	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3140	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3141	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3142	1-126-947-11	ELECT 47UF	20.00% 35V
C3143	1-126-947-11	ELECT 47UF	20.00% 35V
C3144	1-126-947-11	ELECT 47UF	20.00% 35V
C3145	1-126-947-11	ELECT 47UF	20.00% 35V
C3147	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3148	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3300	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3301	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3302	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3303	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3304	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3305	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3306	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3307	1-126-947-11	ELECT 47UF	20.00% 35V
C3308	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3309	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3310	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3311	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3312	1-162-919-11	CERAMIC CHIP 22PF	5.00% 50V
C3313	1-162-919-11	CERAMIC CHIP 22PF	5.00% 50V
C3314	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3315	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3316	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3317	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3318	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3319	1-126-947-11	ELECT 47UF	20.00% 35V
C3320	1-126-947-11	ELECT 47UF	20.00% 35V
C3321	1-115-758-11	ELECT 470UF	20.00% 16V
C3324	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3402	1-126-947-11	ELECT 47UF	20.00% 35V
C3403	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3405	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3406	1-126-947-11	ELECT 47UF	20.00% 35V
C3407	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3408	1-126-947-11	ELECT 47UF	20.00% 35V
C3409	1-126-947-11	ELECT 47UF	20.00% 35V
C3410	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3411	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3412	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C3413	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3421	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C3422	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C3425	1-165-176-11	CERAMIC CHIP 0.047UF	10.00% 16V
C3427	1-165-176-11	CERAMIC CHIP 0.047UF	10.00% 16V
C3428	1-165-176-11	CERAMIC CHIP 0.047UF	10.00% 16V
C3431	1-165-176-11	CERAMIC CHIP 0.047UF	10.00% 16V
C3432	1-165-176-11	CERAMIC CHIP 0.047UF	10.00% 16V
C3433	1-165-176-11	CERAMIC CHIP 0.047UF	10.00% 16V
C3434	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3435	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C3436	1-126-947-11	ELECT 47UF	20.00% 35V
C3847	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C5503	1-162-927-11	CERAMIC CHIP 100PF	5.00% 50V
C5508	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V
C5509	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V
C5510	1-115-416-11	CERAMIC CHIP 0.001UF	5.00% 25V
C5511	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V
C5516	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C5518	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C5521	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
C5558	1-126-947-11	ELECT 47UF	20.00% 35V
C5560	1-127-715-91	CERAMIC CHIP 0.22UF	10% 16V

< CONNECTOR >

REF.NO.	PART.NO	DESCRIPTION	REMARK
CN3100	1-794-244-11	CONNECTOR, DIN (PLUG) 96P	
CN3400	* 1-564-524-11	PLUG, CONNECTOR 9P	
CN3402	* 1-564-519-11	PLUG, CONNECTOR 4P	

< DIODE >

REF.NO.	PART.NO	DESCRIPTION	REMARK
D0069	8-719-083-57	DIODE UDZSTE-173.6B	
D0070	8-719-081-97	DIODE MMDL914T1	
D0071	8-719-081-97	DIODE MMDL914T1	
D5500	8-719-069-55	DIODE UDZSTE-175.6B	
D5501	8-719-083-57	DIODE UDZSTE-173.6B	
D5502	6-500-028-01	DIODE MM3Z9V1ST1	
D5504	8-719-081-97	DIODE MMDL914T1	
D5505	8-719-081-97	DIODE MMDL914T1	
D5506	8-719-081-97	DIODE MMDL914T1	
D5511	8-719-081-97	DIODE MMDL914T1	

< IC >

REF.NO.	PART.NO	DESCRIPTION	REMARK
IC0001	6-704-964-01	IC SDA6001-B12T	
IC0002	8-759-682-41	IC M24C32-WMN6T(A)	
IC0003	6-703-662-01	IC K4S281632D-UC75T	
IC0005	6-804-027-02	IC M27V160-100K1-6Y002	
IC0006	6-702-313-01	IC PST600IMT	
IC0007	8-759-352-91	IC PST9143NL	
IC3100	6-803-528-01	IC VSP9417BC3G	
IC3300	6-705-124-01	IC FRC9429A-A1	
IC3400	6-705-123-01	IC DDP3316C-H5	

< COIL >

REF.NO.	PART.NO	DESCRIPTION	REMARK
L0002	1-414-928-21	INDUCTOR 1UH	
L0003	1-414-928-21	INDUCTOR 1UH	
L0004	1-414-928-21	INDUCTOR 1UH	
L0006	1-414-928-21	INDUCTOR 1UH	
L0007	1-414-928-21	INDUCTOR 1UH	
L0008	1-414-928-21	INDUCTOR 1UH	
L3100	1-414-928-21	INDUCTOR 1UH	
L3104	1-414-928-21	INDUCTOR 1UH	
L3105	1-414-928-21	INDUCTOR 1UH	
L3106	1-414-928-21	INDUCTOR 1UH	
L3107	1-414-928-21	INDUCTOR 1UH	
L3300	1-414-928-21	INDUCTOR 1UH	
L3301	1-414-928-21	INDUCTOR 1UH	
L3302	1-414-928-21	INDUCTOR 1UH	
L3303	1-410-397-21	FERRITE 1.1UH	
L3400	1-414-928-21	INDUCTOR 1UH	
L3401	1-414-928-21	INDUCTOR 1UH	
L3402	1-414-928-21	INDUCTOR 1UH	
L3403	1-414-928-21	INDUCTOR 1UH	
L3404	1-414-928-21	INDUCTOR 1UH	
L5549	1-414-928-21	INDUCTOR 1UH	

< TRANSISTOR >

REF.NO.	PART.NO	DESCRIPTION	REMARK
Q0001	8-729-010-05	TRANSISTOR MSB709-RT1	
Q0002	8-729-010-05	TRANSISTOR MSB709-RT1	
Q0003	8-729-010-05	TRANSISTOR MSB709-RT1	
Q0005	8-729-010-29	TRANSISTOR MSD601-RST1	
Q0075	8-729-010-29	TRANSISTOR MSD601-RST1	
Q3400	8-729-010-29	TRANSISTOR MSD601-RST1	
Q3401	8-729-010-29	TRANSISTOR MSD601-RST1	
Q3402	8-729-010-29	TRANSISTOR MSD601-RST1	
Q3403	8-729-010-29	TRANSISTOR MSD601-RST1	
Q3404	8-729-010-29	TRANSISTOR MSD601-RST1	
Q3405	8-729-010-29	TRANSISTOR MSD601-RST1	
Q3406	8-729-010-05	TRANSISTOR MSB709-RT1	
Q3409	8-729-010-29	TRANSISTOR MSD601-RST1	
Q3410	8-729-010-29	TRANSISTOR MSD601-RST1	
Q5500	8-729-010-29	TRANSISTOR MSD601-RST1	
Q5503	8-729-010-29	TRANSISTOR MSD601-RST1	
Q5505	8-729-010-29	TRANSISTOR MSD601-RST1	
Q5507	8-729-010-05	TRANSISTOR MSB709-RT1	
Q5509	8-729-010-29	TRANSISTOR MSD601-RST1	
Q5519	8-729-010-29	TRANSISTOR MSD601-RST1	
Q5521	8-729-010-05	TRANSISTOR MSB709-RT1	
Q5550	8-729-010-29	TRANSISTOR MSD601-RST1	

< RESISTOR >

REF.NO.	PART.NO	DESCRIPTION	REMARK
JR0002	1-216-864-11	SHORT CHIP 0	
JR0003	1-216-864-11	SHORT CHIP 0	
JR0004	1-216-864-11	SHORT CHIP 0	
JR0008	1-216-864-11	SHORT CHIP 0	
JR0010	1-216-864-11	SHORT CHIP 0	
JR0011	1-216-864-11	SHORT CHIP 0	
JR3400	1-216-864-11	SHORT CHIP 0	
JR3401	1-216-864-11	SHORT CHIP 0	
JR3404	1-216-864-11	SHORT CHIP 0	
JR3406	1-216-864-11	SHORT CHIP 0	
JR3408	1-216-864-11	SHORT CHIP 0	
JR3409	1-216-864-11	SHORT CHIP 0	
JR5582	1-216-864-11	SHORT CHIP 0	
R0001	1-216-833-11	METAL CHIP 10K 5%	1/10W
R0002	1-216-833-11	METAL CHIP 10K 5%	1/10W
R0003	1-216-833-11	METAL CHIP 10K 5%	1/10W
R0004	1-216-816-11	METAL CHIP 390 5%	1/10W
R0005	1-216-816-11	METAL CHIP 390 5%	1/10W
R0006	1-216-816-11	METAL CHIP 390 5%	1/10W
R0007	1-216-817-11	METAL CHIP 470 5%	1/10W
R0008	1-216-817-11	METAL CHIP 470 5%	1/10W
R0009	1-216-817-11	METAL CHIP 470 5%	1/10W
R0011	1-216-864-11	SHORT CHIP 0	

REF.NO.	PART.NO	DESCRIPTION			REMARK
R0014	1-216-805-11	METAL CHIP	47	5%	1/10W
R0015	1-216-805-11	METAL CHIP	47	5%	1/10W
R0016	1-216-805-11	METAL CHIP	47	5%	1/10W
R0017	1-216-821-11	METAL CHIP	1K	5%	1/10W
R0018	1-216-864-11	SHORT CHIP	0		
R0019	1-216-809-11	METAL CHIP	100	5%	1/10W
R0020	1-216-833-11	METAL CHIP	10K	5%	1/10W
R0021	1-216-809-11	METAL CHIP	100	5%	1/10W
R0022	1-216-864-11	SHORT CHIP	0		
R0023	1-216-833-11	METAL CHIP	10K	5%	1/10W
R0025	1-216-809-11	METAL CHIP	100	5%	1/10W
R0026	1-216-809-11	METAL CHIP	100	5%	1/10W
R0027	1-216-809-11	METAL CHIP	100	5%	1/10W
R0028	1-216-833-11	METAL CHIP	10K	5%	1/10W
R0029	1-216-809-11	METAL CHIP	100	5%	1/10W
R0030	1-216-809-11	METAL CHIP	100	5%	1/10W
R0031	1-216-809-11	METAL CHIP	100	5%	1/10W
R0032	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R0033	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R0034	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R0035	1-216-809-11	METAL CHIP	100	5%	1/10W
R0036	1-216-809-11	METAL CHIP	100	5%	1/10W
R0037	1-216-809-11	METAL CHIP	100	5%	1/10W
R0038	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R0039	1-216-809-11	METAL CHIP	100	5%	1/10W
R0040	1-216-809-11	METAL CHIP	100	5%	1/10W
R0041	1-216-821-11	METAL CHIP	1K	5%	1/10W
R0042	1-216-809-11	METAL CHIP	100	5%	1/10W
R0043	1-216-864-11	SHORT CHIP	0		
R0044	1-216-809-11	METAL CHIP	100	5%	1/10W
R0045	1-216-809-11	METAL CHIP	100	5%	1/10W
R0046	1-216-833-11	METAL CHIP	10K	5%	1/10W
R0047	1-216-809-11	METAL CHIP	100	5%	1/10W
R0048	1-216-809-11	METAL CHIP	100	5%	1/10W
R0049	1-216-809-11	METAL CHIP	100	5%	1/10W
R0052	1-216-809-11	METAL CHIP	100	5%	1/10W
R0053	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R0056	1-216-809-11	METAL CHIP	100	5%	1/10W
R0057	1-216-809-11	METAL CHIP	100	5%	1/10W
R0059	1-216-809-11	METAL CHIP	100	5%	1/10W
R0060	1-216-809-11	METAL CHIP	100	5%	1/10W
R0063	1-216-809-11	METAL CHIP	100	5%	1/10W
R0064	1-216-809-11	METAL CHIP	100	5%	1/10W
R0065	1-216-833-11	METAL CHIP	10K	5%	1/10W
R0066	1-216-833-11	METAL CHIP	10K	5%	1/10W
R0067	1-216-833-11	METAL CHIP	10K	5%	1/10W
R0068	1-216-833-11	METAL CHIP	10K	5%	1/10W
R0069	1-216-833-11	METAL CHIP	10K	5%	1/10W
R0070	1-216-809-11	METAL CHIP	100	5%	1/10W
R0071	1-216-849-11	METAL CHIP	220K	5%	1/10W
R0072	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R0073	1-216-833-11	METAL CHIP	10K	5%	1/10W
R0074	1-216-864-11	SHORT CHIP	0		
R0075	1-216-809-11	METAL CHIP	100	5%	1/10W
R0076	1-216-864-11	SHORT CHIP	0		
R0079	1-216-864-11	SHORT CHIP	0		
R0080	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R0081	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R0082	1-216-809-11	METAL CHIP	100	5%	1/10W
R0083	1-216-809-11	METAL CHIP	100	5%	1/10W
R0084	1-216-833-11	METAL CHIP	10K	5%	1/10W
R0085	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R0086	1-216-809-11	METAL CHIP	100	5%	1/10W
R0087	1-216-809-11	METAL CHIP	100	5%	1/10W
R0088	1-216-809-11	METAL CHIP	100	5%	1/10W
R0089	1-107-826-11	CERAMIC CHIP	0.1UF		10.00% 16V
R0092	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R0093	1-216-833-11	METAL CHIP	10K	5%	1/10W
R0095	1-216-821-11	METAL CHIP	1K	5%	1/10W
R0099	1-216-833-11	METAL CHIP	10K	5%	1/10W
R0102	1-216-864-11	SHORT CHIP	0		
R0108	1-216-864-11	SHORT CHIP	0		
R0137	1-216-839-11	METAL CHIP	33K	5%	1/10W
R3100	1-216-864-11	SHORT CHIP	0		
R3103	1-216-864-11	SHORT CHIP	0		
R3104	1-216-864-11	SHORT CHIP	0		
R3106	1-216-864-11	SHORT CHIP	0		
R3108	1-216-864-11	SHORT CHIP	0		
R3109	1-216-809-11	METAL CHIP	100	5%	1/10W
R3110	1-216-809-11	METAL CHIP	100	5%	1/10W
R3112	1-216-809-11	METAL CHIP	100	5%	1/10W
R3113	1-216-809-11	METAL CHIP	100	5%	1/10W
R3114	1-216-864-11	SHORT CHIP	0		
R3115	1-216-864-11	SHORT CHIP	0		
R3117	1-216-864-11	SHORT CHIP	0		
R3165	1-216-845-11	METAL CHIP	100K	5%	1/10W
R3220	1-216-864-11	SHORT CHIP	0		
R3221	1-216-864-11	SHORT CHIP	0		
R3222	1-216-864-11	SHORT CHIP	0		
R3223	1-216-864-11	SHORT CHIP	0		
R3270	1-216-864-11	SHORT CHIP	0		
R3271	1-216-864-11	SHORT CHIP	0		
R3272	1-216-864-11	SHORT CHIP	0		
R3300	1-216-809-11	METAL CHIP	100	5%	1/10W
R3301	1-216-809-11	METAL CHIP	100	5%	1/10W
R3302	1-216-864-11	SHORT CHIP	0		
R3303	1-216-864-11	SHORT CHIP	0		
R3306	1-216-864-11	SHORT CHIP	0		
R3307	1-216-864-11	SHORT CHIP	0		
R3308	1-216-864-11	SHORT CHIP	0		

REF.NO.	PART.NO	DESCRIPTION			REMARK
R3311	1-216-864-11	SHORT CHIP	0		
R3314	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3315	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3316	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3317	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3318	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3319	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3320	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3321	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3327	1-216-817-11	METAL CHIP	470	5%	1/10W
R3400	1-216-864-11	SHORT CHIP	0		
R3401	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3403	1-218-843-11	METAL CHIP	680	0.5%	1/10W
R3405	1-216-797-11	METAL CHIP	10	5%	1/10W
R3406	1-216-864-11	SHORT CHIP	0		
R3408	1-216-797-11	METAL CHIP	10	5%	1/10W
R3409	1-216-864-11	SHORT CHIP	0		
R3410	1-216-797-11	METAL CHIP	10	5%	1/10W
R3412	1-216-864-11	SHORT CHIP	0		
R3413	1-216-864-11	SHORT CHIP	0		
R3414	1-216-809-11	METAL CHIP	100	5%	1/10W
R3415	1-218-855-11	METAL CHIP	2.2K	0.5%	1/10W
R3416	1-218-837-11	METAL CHIP	390	0.5%	1/10W
R3417	1-218-855-11	METAL CHIP	2.2K	0.5%	1/10W
R3419	1-216-817-11	METAL CHIP	470	5%	1/10W
R3421	1-216-817-11	METAL CHIP	470	5%	1/10W
R3422	1-216-809-11	METAL CHIP	100	5%	1/10W
R3423	1-216-817-11	METAL CHIP	470	5%	1/10W
R3427	1-216-820-11	METAL CHIP	820	5%	1/10W
R3428	1-216-820-11	METAL CHIP	820	5%	1/10W
R3429	1-216-820-11	METAL CHIP	820	5%	1/10W
R3434	1-216-864-11	SHORT CHIP	0		
R3436	1-216-864-11	SHORT CHIP	0		
R3437	1-216-864-11	SHORT CHIP	0		
R3438	1-216-864-11	SHORT CHIP	0		
R3443	1-218-847-11	METAL CHIP	1K	0.5%	1/10W
R3444	1-216-809-11	METAL CHIP	100	5%	1/10W
R3445	1-216-809-11	METAL CHIP	100	5%	1/10W
R3446	1-216-811-11	METAL CHIP	150	5%	1/10W
R3450	1-218-837-11	METAL CHIP	390	0.5%	1/10W
R3451	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3452	1-216-817-11	METAL CHIP	470	5%	1/10W
R3471	1-216-821-11	METAL CHIP	1K	5%	1/10W
R5501	1-216-821-11	METAL CHIP	1K	5%	1/10W
R5502	1-216-809-11	METAL CHIP	100	5%	1/10W
R5503	1-216-821-11	METAL CHIP	1K	5%	1/10W
R5504	1-216-809-11	METAL CHIP	100	5%	1/10W
R5505	1-216-809-11	METAL CHIP	100	5%	1/10W
R5507	1-216-864-11	SHORT CHIP	0		
R5508	1-216-829-11	METAL CHIP	4.7K	5%	1/10W

REF.NO.	PART.NO	DESCRIPTION			REMARK
R5510	1-216-809-11	METAL CHIP	100	5%	1/10W
R5511	1-216-809-11	METAL CHIP	100	5%	1/10W
R5512	1-216-838-11	METAL CHIP	27K	5%	1/10W
R5513	1-218-863-11	METAL CHIP	4.7K	0.5%	1/10W
R5516	1-218-831-11	METAL CHIP	220	0.5%	1/10W
R5517	1-216-809-11	METAL CHIP	100	5%	1/10W
R5518	1-216-809-11	METAL CHIP	100	5%	1/10W
R5521	1-216-821-11	METAL CHIP	1K	5%	1/10W
R5523	1-218-855-11	METAL CHIP	2.2K	0.5%	1/10W
R5524	1-216-838-11	METAL CHIP	27K	5%	1/10W
R5526	1-216-821-11	METAL CHIP	1K	5%	1/10W
R5528	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5529	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5532	1-216-821-11	METAL CHIP	1K	5%	1/10W
R5539	1-218-879-11	METAL CHIP	22K	0.5%	1/10W
R5540	1-218-881-11	METAL CHIP	27K	0.5%	1/10W
R5541	1-216-821-11	METAL CHIP	1K	5%	1/10W
R5543	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R5544	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R5545	1-218-895-11	METAL CHIP	100K	0.5%	1/10W
R5547	1-218-895-11	METAL CHIP	100K	0.5%	1/10W
R5548	1-218-887-11	METAL CHIP	47K	0.5%	1/10W
R5549	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5550	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5551	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5552	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5555	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5556	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R5557	1-216-809-11	METAL CHIP	100	5%	1/10W
R5558	1-216-809-11	METAL CHIP	100	5%	1/10W
R5559	1-216-864-11	SHORT CHIP	0		
R5560	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5561	1-216-821-11	METAL CHIP	1K	5%	1/10W
R5566	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5569	1-216-864-11	SHORT CHIP	0		
R5570	1-216-864-11	SHORT CHIP	0		
R5571	1-216-864-11	SHORT CHIP	0		
R5572	1-216-864-11	SHORT CHIP	0		
R5573	1-216-864-11	SHORT CHIP	0		
R5580	1-216-864-11	SHORT CHIP	0		
R5582	1-216-821-11	METAL CHIP	1K	5%	1/10W

< RESISTOR CHIP >

RB0030	1-233-576-11	RES, CHIP NETWORK 100	(316)
RB0031	1-233-576-11	RES, CHIP NETWORK 100	(316)
RB0032	1-233-576-11	RES, CHIP NETWORK 100	(316)
RB0033	1-233-576-11	RES, CHIP NETWORK 100	(316)
RB0034	1-233-576-11	RES, CHIP NETWORK 100	(316)
RB0035	1-233-576-11	RES, CHIP NETWORK 100	(316)

Note : The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

REF.NO.	PART.NO	DESCRIPTION	REMARK
RB0036	1-233-576-11	RES, CHIP NETWORK 100	(3216)
RB0037	1-233-576-11	RES, CHIP NETWORK 100	(3216)
RB0038	1-233-576-11	RES, CHIP NETWORK 100	(3216)
RB0039	1-233-576-11	RES, CHIP NETWORK 100	(3216)
RB0043	1-233-576-11	RES, CHIP NETWORK 100	(3216)
RB0044	1-233-576-11	RES, CHIP NETWORK 100	(3216)
RB0045	1-233-576-11	RES, CHIP NETWORK 100	(3216)
RB0050	1-233-576-11	RES, CHIP NETWORK 100	(3216)
RB0051	1-233-576-11	RES, CHIP NETWORK 100	(3216)
RB0052	1-233-576-11	RES, CHIP NETWORK 100	(3216)
RB0053	1-233-576-11	RES, CHIP NETWORK 100	(3216)
RB0054	1-233-576-11	RES, CHIP NETWORK 100	(3216)
RB0055	1-233-576-11	RES, CHIP NETWORK 100	(3216)
RB3100	1-234-523-21	RES, CHIP NETWORK 0	(3216)
RB3101	1-234-523-21	RES, CHIP NETWORK 0	(3216)

< CRYSTAL >

REF.NO.	PART.NO	DESCRIPTION	REMARK
X0001	1-567-162-00	OSCILLATOR, CRYSTAL	
X3100	1-781-946-21	VIBRATOR, CRYSTAL	
X3300	1-781-946-21	VIBRATOR, CRYSTAL	
X3400	1-795-058-21	VIBRATOR, CERAMIC	

* A-1302-325-A G Board Complete

REF.NO.	PART.NO	DESCRIPTION	REMARK
	4-382-854-01	SCREW (M3X8), P, SW (+)	

< CAPACITOR >

REF.NO.	PART.NO	DESCRIPTION	REMARK
C6002	1-113-924-11	CERAMIC 0.0047UF	20.00% 250V
C6006 ⚠	1-165-528-11	MYLAR 0.1UF	10 275V
C6009 ⚠	1-119-899-51	CERAMIC 1000PF	10.00% 250V
C6010 ⚠	1-119-899-51	CERAMIC 1000PF	10.00% 250V
C6013	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V
C6017	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V
C6018	1-126-967-11	ELECT 47UF	20.00% 50V
C6019	1-126-949-11	ELECT 220UF	20.00% 35V
C6020	1-126-963-11	ELECT 4.7UF	20.00% 50V
C6021	1-126-964-11	ELECT 10UF	20.00% 50V
C6022 ⚠	1-104-571-91	CERAMIC 0.0015UF	10.00% 2KV
C6023 ⚠	1-104-571-91	CERAMIC 0.0015UF	10.00% 2KV
C6024	1-162-974-11	CERAMIC CHIP 0.01UF	50V
C6025	1-130-471-00	MYLAR 0.001UF	5.00% 50V
C6026 ⚠	1-104-571-91	CERAMIC 0.0015UF	10.00% 2KV
C6027 ⚠	1-104-571-91	CERAMIC 0.0015UF	10.00% 2KV
C6029	1-136-497-81	FILM 0.1UF	5.00% 50V
C6030	1-126-947-11	ELECT 47UF	20.00% 35V
C6032	1-125-906-11	ELECT 560UF	20.00% 450V
C6034	1-125-969-91	CERAMIC 680PF	10.00% 1KV
C6035	1-125-969-91	CERAMIC 680PF	10.00% 1KV
C6036	1-165-950-11	FILM 68000PF	3% 800V
C6038	1-126-968-11	ELECT 100UF	20.00% 50V
C6039	1-162-995-11	CERAMIC CHIP 0.022UF	50V

REF.NO.	PART.NO	DESCRIPTION	REMARK
C6045	1-126-937-11	ELECT 4700UF	20.00% 16V
C6046	1-128-549-11	ELECT 3300UF	20.00% 35V
C6047	1-128-549-11	ELECT 3300UF	20.00% 35V
C6048	1-126-933-11	ELECT 100UF	20.00% 16V
C6049	1-110-626-11	ELECT 330UF	20.00% 160V
C6051	1-115-766-51	ELECT 0.0022F	20.00% 16V
C6055	1-126-952-11	ELECT 1000UF	20.00% 35V
C6056	1-126-952-11	ELECT 1000UF	20.00% 35V
C6057	1-128-549-11	ELECT 3300UF	20.00% 35V
C6058	1-128-549-11	ELECT 3300UF	20.00% 35V
C6061	1-109-954-11	ELECT 0.47UF	20.00% 160V
C6062	1-104-655-91	ELECT 470UF	20.00% 6.3V
C6063	1-126-949-11	ELECT 220UF	20.00% 35V
C6064	1-126-949-11	ELECT 220UF	20.00% 35V
C6065	1-126-949-11	ELECT 220UF	20.00% 35V
C6066	1-126-949-11	ELECT 220UF	20.00% 35V
C6069	1-162-974-11	CERAMIC CHIP 0.01UF	50V
C6071	1-162-974-11	CERAMIC CHIP 0.01UF	50V
C6073	1-162-974-11	CERAMIC CHIP 0.01UF	50V
C6074	1-162-974-11	CERAMIC CHIP 0.01UF	50V
C6076	1-162-974-11	CERAMIC CHIP 0.01UF	50V
C6078	1-110-626-11	ELECT 330UF	20.00% 160V
C6079	1-110-626-11	ELECT 330UF	20.00% 160V
C6101	1-119-940-51	ELECT 4700UF	20.00% 50V

< CONNECTOR >

REF.NO.	PART.NO	DESCRIPTION	REMARK
CN6001 ⚠	* 1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P	
CN6002	1-695-915-11	TAB (CONTACT)	
CN6003 ⚠	* 1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P	
CN6005	1-695-915-11	TAB (CONTACT)	
CN6006	1-691-773-11	PLUG (MICRO CONNECTOR) 11P	
CN6007 ⚠	* 1-580-843-11	PIN, CONNECTOR (POWER)	
CN6008	* 1-816-977-51	PLUG, CONNECTOR 6P	
CN6009	* 1-691-772-11	PLUG (MICRO CONNECTOR) 10P	
CN6012	* 1-564-510-11	PLUG, CONNECTOR 7P	
CN6013	1-695-915-11	TAB (CONTACT)	
CN6014	1-695-915-11	TAB (CONTACT)	

< DIODE >

REF.NO.	PART.NO	DESCRIPTION	REMARK
D6011 ⚠	8-719-077-77	DIODE D3SB60F3	
D6012	8-719-080-59	DIODE EK19-V0	
D6013	8-719-083-94	DIODE FUF4005	
D6022	8-719-988-61	DIODE 1SS355TE-17	
D6023	6-500-175-01	DIODE 1E3-TB	
D6024	8-719-050-18	DIODE D4SBL20U	
D6025	8-719-060-88	DIODE D4SBS6	
D6026	8-719-060-88	DIODE D4SBS6	
D6027	8-719-060-88	DIODE D4SBS6	
D6028	8-719-080-59	DIODE EK19-V0	

Note : The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

REF.NO.	PART.NO	DESCRIPTION	REMARK
D6030	8-719-988-31	DIODE D10SC6MR	
D6031	8-719-057-96	DIODE D10SC6M-4012	
D6035	8-719-988-61	DIODE 1SS355TE-17	
D6036	8-719-988-61	DIODE 1SS355TE-17	
D6037	8-719-921-88	DIODE MTZJ-13B	
D6040	8-719-083-57	DIODE UDZSTE-173.6B	
D6041	8-719-083-57	DIODE UDZSTE-173.6B	
D6042	8-719-083-87	DIODE UDZS-TE17-33B	
D6047	8-719-081-97	DIODE MMDL914T1	
D6102	8-719-511-40	DIODE S1VB40	
D6104	8-719-080-59	DIODE EK19-V0	
D6109	8-719-988-61	DIODE 1SS355TE-17	

< FERRITE BEAD >

REF.NO.	PART.NO	DESCRIPTION	REMARK
FB6004	1-412-911-11	FERRITE 0UH	
FB6005	1-535-303-00	LEAD, JUMPER (5.0MM)	
FB6006	1-535-303-00	LEAD, JUMPER (5.0MM)	
FB6007	1-535-303-00	LEAD, JUMPER (5.0MM)	
FB6008	1-535-303-00	LEAD, JUMPER (5.0MM)	
FB6009	1-535-303-00	LEAD, JUMPER (10.0MM)	
FB6010	1-412-911-11	FERRITE 0UH	
FB6011	1-412-911-11	FERRITE 0UH	
FB6012	1-535-303-00	LEAD, JUMPER (10.0MM)	
FB6013	1-412-911-11	FERRITE 0UH	
FB6014	1-412-911-11	FERRITE 0UH	
FB6015	1-412-911-11	FERRITE 0UH	
FB6016	1-412-911-11	FERRITE 0UH	

< IC >

REF.NO.	PART.NO	DESCRIPTION	REMARK
IC6002	8-759-670-30	IC MCZ3001D	
IC6004	8-749-016-19	IC SE135N-LF4	

< COIL >

REF.NO.	PART.NO	DESCRIPTION	REMARK
L6000 ⚠	1-433-488-31	TRANSFORMER, LINE FILTER	
L6002	1-535-303-00	LEAD, JUMPER (5.0MM)	
L6005	1-406-659-11	INDUCTOR 10UH	
L6011	1-412-525-31	INDUCTOR 10UH	
L6012	1-412-525-31	INDUCTOR 10UH	
L6013	1-412-525-31	INDUCTOR 10UH	
L6014	1-412-525-31	INDUCTOR 10UH	
L6016	1-412-525-31	INDUCTOR 10UH	
L6018	1-412-526-11	INDUCTOR 12UH	
L6019	1-412-526-11	INDUCTOR 12UH	
L6020	1-406-659-11	INDUCTOR 10UH	
L6021	1-406-659-11	INDUCTOR 10UH	

< PHOTOCOUPLER >

REF.NO.	PART.NO	DESCRIPTION	REMARK
PH6001	6-600-187-01	PHOTO COUPLER PC123Y22J00F	

< PROTECTOR MODULE >

REF.NO.	PART.NO	DESCRIPTION	REMARK
PS6000 ⚠	1-533-597-31	IC LINK	5A 90V
PS6001 ⚠	1-533-597-31	IC LINK	5A 90V
PS6004 ⚠	1-533-597-31	IC LINK	5A 90V
PS6005 ⚠	1-533-597-31	IC LINK	5A 90V
PS6006 ⚠	1-533-597-31	IC LINK	5A 90V
PS6007 ⚠	1-533-597-31	IC LINK	5A 90V
PS6009 ⚠	1-801-549-21	IC LINK	4A 0V
PS6010 ⚠	1-801-549-21	IC LINK	4A 0V

< TRANSISTOR >

REF.NO.	PART.NO	DESCRIPTION	REMARK
Q6003	6-550-698-01	TRANSISTOR SPA08N50C3-E8152	
Q6004	6-550-698-01	TRANSISTOR SPA08N50C3-E8152	
Q6006	8-729-820-82	TRANSISTOR 2SA1208-S	
Q6007	8-729-010-05	TRANSISTOR MSB709-RT1	
Q6008	8-729-010-29	TRANSISTOR MSD601-RST1	
Q6102	8-729-010-29	TRANSISTOR MSD601-RST1	

< RESISTOR >

REF.NO.	PART.NO	DESCRIPTION	REMARK
JR6100	1-216-864-11	SHORT CHIP 0	
R6002 ⚠	1-218-265-11	METAL 8.2M 5%	1W
R6018 ⚠	1-535-143-51	LEAD, JUMPER (20.0MM)	
R6019 ⚠	1-205-998-11	CEMENTED 1 5%	10W
R6020 ⚠	1-535-143-51	LEAD, JUMPER (20.0MM)	
R6021 ⚠	1-205-998-11	CEMENTED 1 5%	10W
R6028	1-218-871-11	METAL CHIP 10K 0.5%	1/10W
R6029	1-245-478-21	METAL 470K 1%	1/4W
R6030	1-245-478-21	METAL 470K 1%	1/4W
R6032	1-218-823-11	METAL CHIP 100 0.5%	1/10W
R6035	1-535-303-00	LEAD, JUMPER (5.0MM)	
R6038	1-218-875-11	METAL CHIP 15K 0.5%	1/10W
R6039	1-218-831-11	METAL CHIP 220 0.5%	1/10W
R6041	1-249-417-11	CARBON 1K 5%	1/4W
R6042	1-249-393-11	CARBON 10 5%	1/4W
R6043	1-249-393-11	CARBON 10 5%	1/4W
R6045	1-216-833-11	METAL CHIP 10K 5%	1/10W
R6046	1-216-833-11	METAL CHIP 10K 5%	1/10W
R6047 ⚠	1-220-886-11	FUSIBLE 0.1 10%	1W
R6048	1-216-813-11	METAL CHIP 220 5%	1/10W
R6049	1-535-303-00	LEAD, JUMPER (5.0MM)	
R6050	1-535-303-00	LEAD, JUMPER (5.0MM)	
R6051	1-216-813-11	METAL CHIP 220 5%	1/10W
R6052	1-245-315-71	METAL OXIDE 0.1 5%	2W
R6053	1-245-315-71	METAL OXIDE 0.1 5%	2W
R6054	1-216-821-11	METAL CHIP 1K 5%	1/10W
R6055	1-216-824-11	METAL CHIP 1.8K 5%	1/10W
R6056	1-216-864-11	SHORT CHIP 0	
R6057	1-249-393-11	CARBON 10 5%	1/4W

Note : The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

REF.NO.	PART.NO	DESCRIPTION	REMARK
R6058	1-216-833-11	METAL CHIP 10K 5%	1/10W
R6060	1-249-405-11	CARBON 100 5%	1/4W
R6061	1-245-494-21	METAL 2.2M 2%	1/4W
R6062	1-245-494-21	METAL 2.2M 2%	1/4W
R6066	1-215-477-00	METAL 220K 1%	1/4W
R6067	1-249-417-11	CARBON 1K 5%	1/4W
R6068	1-216-843-11	METAL CHIP 68K 5%	1/10W
R6069	1-243-957-71	METAL OXIDE 0.47 5%	3W
R6070	1-215-477-00	METAL 220K 1%	1/4W
R6071	1-249-417-11	CARBON 1K 5%	1/4W
R6075	1-215-453-00	METAL 22K 1%	1/4W
R6076	1-215-476-00	METAL 200K 1%	1/4W
R6077	1-243-816-71	METAL OXIDE 3.3 5%	1W
R6078	1-243-624-71	METAL OXIDE 33K 5%	3W
R6079	1-216-833-11	METAL CHIP 10K 5%	1/10W
R6080	1-218-871-11	METAL CHIP 10K 0.5%	1/10W
R6081	1-218-865-11	METAL CHIP 5.6K 0.5%	1/10W
R6082	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
R6083	1-216-821-11	METAL CHIP 1K 5%	1/10W
R6084	1-216-833-11	METAL CHIP 10K 5%	1/10W
R6103	1-216-821-11	METAL CHIP 1K 5%	1/10W
R6106	1-216-821-11	METAL CHIP 1K 5%	1/10W
R6107	1-216-829-11	METAL CHIP 4.7K 5%	1/10W

< RELAY >

RY6001 ⚠	1-755-388-11	RELAY (AC POWER)	

< TRANSFORMER >

T6002 ⚠	1-443-086-11	TRANSFORMER, CONVERTER (PIT)	
T6003 ⚠	1-456-525-11	INDUCTOR 20MH	
T6100 ⚠	1-443-114-11	TRANSFORMER, STANDBY	

* A-1405-594-A H1 Board Complete

< CAPACITOR >

C2905	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V
C2906	1-126-960-11	ELECT 1UF	20.00% 50V
C2907	1-126-960-11	ELECT 1UF	20.00% 50V
C2930	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V

< CONNECTOR >

CN2900	1-779-947-31	TERMINAL BLOCK, S(LIGHT ANGLE)	
CN2909	* 1-564-523-11	PLUG, CONNECTOR 8P	
CN2912	* 1-564-522-11	PLUG, CONNECTOR 7P	

< DIODE >

D0901	8-719-109-89	DIODE RD5.6ESB2	
D0908	8-719-109-89	DIODE RD5.6ESB2	

< SOCKET >

REF.NO.	PART.NO	DESCRIPTION	REMARK
J2901	1-817-763-11	JACK	

< COIL >

L2901	1-414-856-11	INDUCTOR 10UH	
L2904	1-414-856-11	INDUCTOR 10UH	

< RESISTOR >

R0901	1-216-864-11	SHORT CHIP 0	
R0902	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
R0910	1-216-864-11	SHORT CHIP 0	
R0911	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
R0912	1-216-837-11	METAL CHIP 22K 5%	1/10W
R0913	1-216-833-11	METAL CHIP 10K 5%	1/10W
R0914	1-216-833-11	METAL CHIP 10K 5%	1/10W
R2903	1-216-864-11	SHORT CHIP 0	
R2904	1-216-864-11	SHORT CHIP 0	
R2909	1-216-853-11	METAL CHIP 470K 5%	1/10W
R2910	1-216-853-11	METAL CHIP 470K 5%	1/10W
R2917	1-216-821-11	METAL CHIP 1K 5%	1/10W
R2918	1-216-821-11	METAL CHIP 1K 5%	1/10W

< SWITCH >

S0900	1-692-431-21	SWITCH, TACTILE	
S0901	1-692-431-21	SWITCH, TACTILE	
S0902	1-692-431-21	SWITCH, TACTILE	
S0903	1-692-431-21	SWITCH, TACTILE	
S0904	1-692-431-21	SWITCH, TACTILE	
S0905	1-692-431-21	SWITCH, TACTILE	
S0906	1-692-431-21	SWITCH, TACTILE	

* A-1410-989-A F1 Board Complete

< CAPACITOR >

C0982	1-104-665-11	ELECT 100UF	20.00% 25V
C0983	1-102-114-00	CERAMIC 470PF	10.00% 50V
C0984	1-102-129-00	CERAMIC 0.01UF	10.00% 50V
C6400 ⚠	1-165-530-11	MYLAR 0.47UF	10 275V

< CONNECTOR >

CN0982	* 1-564-521-11	PLUG, CONNECTOR 6P	
CN6400 ⚠	* 1-580-844-11	PIN, CONNECTOR (POWER)	
CN6401 ⚠	* 1-695-292-11	PIN, CONNECTOR (POWER)	

< DIODE >

D0981	8-719-109-89	DIODE RD5.6ESB2	
D0982	8-719-109-89	DIODE RD5.6ESB2	
D0983	8-719-082-12	DIODE TLHK5190	
DH0983	4-206-220-01	HOLDER, LED	

Note : The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

REF.NO.	PART.NO	DESCRIPTION	REMARK
		< FUSE >	
F6400 ⚠	1-576-232-12	FUSE 5A	250V
FH6400 ⚠	1-533-725-11	FUSE HOLDER	
		< IC >	
IC0981	6-704-532-01	IC RPM7240-H5	
		< RESISTOR >	
R0982	1-247-807-31	CARBON 100 5%	1/4W
R6400 ⚠	1-202-719-00	SOLID 1M 10%	1/2W
		< SWITCH >	
S6400 ⚠	1-571-433-21	SWITCH, PUSH (AC POWER)	
		< VARISTOR >	
VD6400 ⚠	1-804-995-11	VARISTOR	

MISCELLANEOUS

REF.NO.	PART.NO	DESCRIPTION	REMARK
	1-528-864-11	BATTERY, SOLAR	
	1-825-555-11	LOUDSPEAKER (13CM)	
⚠	1-571-433-21	SWITCH, PUSH (AC POWER)	
⚠	1-223-925-82	RESISTOR ASSY (HIGH VOLTAGE)	
⚠	1-776-860-11	POWER CORD, FILTER (UK)	
⚠	1-453-285-41	TRANSFORMER ASSY, FLYBACK (NX-4006//M3P4)	
	8-598-535-20	FRONT END BTF-EF411	
⚠	1-451-535-14	COIL ASSY VM	
⚠	1-451-536-31	DEFLECTION YOKE	
⚠	A-1606-795-A	COUPLER (R) ASSY, CRT	
⚠	A-1606-801-A	COUPLER (G) ASSY, CRT	
⚠	A-1606-792-A	COUPLER (B) ASSY, CRT	
⚠	8-598-955-32	BLOCK ASSY, HV HVB-1031	

ACCESSORIES AND PACKAGING MATERIALS

REF.NO.	PART.NO	DESCRIPTION	REMARK
	*4-055-672-01	BAG, PROTECTION	
	*4-055-673-01	SHEET, PROTECTION	
	*4-087-938-01	JOINT	
	*4-102-596-01	CUSHION (44) LOWER ASSY	
	4-102-597-01	INDIVIDUAL CARTON (44)	
	4-102-598-01	TRAY (44)	
	*4-102-599-01	CUSHION (44) UPPER ASSY	
	4-102-591-11	INSTRUCTION MANUAL(ENGLISH/BULGARIAN/CZECH/HUNGARIAN/POLISH/RUSSIAN) (KP-44PX3)	
	4-102-591-21	INSTRUCTION MANUAL(DANISH/SPANISH/FINNISH/NORWEGIAN/PORTUGUESE/SWEDISH) (KP-44PX3)	
	4-102-591-31	INSTRUCTION MANUAL(GERMAN/FRENCH/GREEK/ITALIAN/DUTCH/TURKISH) (KP-44PX3)	
	4-102-591-41	INSTRUCTION MANUAL(ENGLISH) (KP-44PX3U)	

REMOTE COMMANDER

REF.NO.	PART.NO	DESCRIPTION	REMARK
	1-478-639-11	REMOTE COMMANDER (RM-945)	

TRACE

A new TV Repair Assistance Tool that combines ease of use and powerful PC software tools to allow you to save valuable time during many TV repairs.

RS-232
SONY TCSE
TRACE
CTRL
POWER
9V DC
POWER

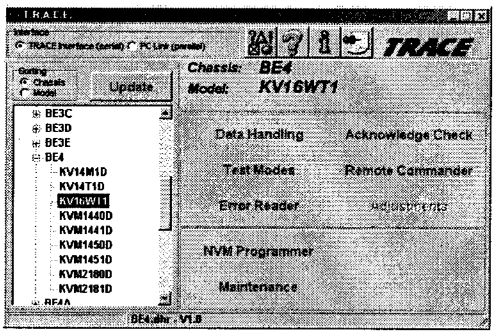
The TRACE interface connects to the PC's serial port. It provides connection to the TV's I^2C bus and can be provided with an InfraRed transmitter (optional).

The interface is powered by a standard 9 V PP3 battery for portable use, and can also be powered by an external 9V/25mA DC power supply.

The TRACE software that is supplied with the interface allows you to:
- Read, restore and compare NVM contents via the I^2C bus
- Acknowledge check of all I^2C devices in the TV set
- Read Error Codes (emulation of the Error Reader tool)

With the optional IR Add-on kit, the following features can be added:
- Remote Commander emulation
- User programmable Functional Check through Infrared
- Fast and documented Test Mode setting of all Sony TV chassis

Additional features such as Adjustments and Troubleshooting are available in chassis-dependent software modules. Please contact your local Sony Service organisation for the latest information.


T.R.A.C.E.
TRACE
Update
BE3C
BE3D
BE3E
BE4
KV14M1D
KV14T1D
KV16WT1
KVM1440D
KVM1441D
KVM1450D
KVM1451D
KVM2180D
KVM2181D
BE4A
Data Handling
Acknowledge Check
Test Modes
Remote Commander
Error Reader
Adjustments
NVM Programmer
Maintenance
BE4.dhr - V1.0

Interface: ● TRACE Interface (serial) ○ PC Link (parallel)

Sorting: ● Chassis ○ Model

Chassis: BE4

Model: KV16WT1

Note: For workshops already using the existing I^2C Link parallel port interface (9-948-320-30), this software can be used as well, replacing the TV Data Handling software (9-948-340-50), but Error Reader and IR functions can only be accessed with the TRACE interface.

Partnumbers:	TRACE Starter Kit (TRACE interface + software):	9-948-320-70
	TRACE Software (for users of the I^2C Link interface):	9-948-340-80
	TRACE IR Add-on (IR interface + Remote Commander software):	9-948-320-80

PC requirements: IBM-compatible PC with operating system Windows95, Windows98, or WindowsNT*.

* WindowsNT only supported with TRACE interface

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Sony UK
Service Promotions Dept.

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